

# Alexey Aksenov

DevOps Engineer

About 20 years of IT experience.  
Guru of Automation.



## PROFILE

## ABOUT

### Place Of Birth

Moscow, Russia

### Language spoken

Russian, English

### Contact

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I have broad experience and a deep understanding of different IT areas: hardware, network, software. Such skills give me an opportunity to combine tools for the achievement of excellence in quality and delivery. For example, I could:

- develop and implement Bit Data ETL that collects metrics from thousands of origins, provides interactive analytics with eye candy reports for business owners and management teams;
- automate processes of on-premise and cloud enterprise infrastructure including specific hardware with orchestrators and monitoring systems;
- move legacy services to modern environments;
- reduce technical debt thru automation and better test coverage;
- effectively interact with owners, infrastructure and application teams for products that based on different languages and technologies

## THE LATEST CHALLENGES

- Wrote [Kubernetes](#) operator based on [@kubernetes/client-node](#) client in the form of [Jest](#) test suite orchestrating containers with port forwarding for database setup, uploading/downloading of artifacts, and synchronization of tasks between Kubernetes namespaces.
- Wrote a scalable [Mesos](#)/[Marathon](#) turn-key solution with persistent storage. Each cluster is fully operational after single deployment command '`gradle build`' and contains configured by code [Jenkins](#) with [Mesos slaves](#), [ElasticSearch](#), [Kibana](#), log exporters/collectors, [Prometheus](#) exporters. Instances stuff is controlled by multi-master HA [SaltStack](#).
- Participated in the recovery of distributed more than five years old legacy application, which is using dozen of absolutely different Python/NodeJS/PHP microservices that spread across Amazon accounts and deployed to [ECS](#), [Elastic BeansTalk](#) and [CodeDeploy](#). Reduced the number of incidents in times.

*Kibana dashboard is my everyday tool for data matching of everything that could be represented as a sequence of dictionaries.*

## PRESENT AND PREVIOUS POSITIONS

since 2018

IT System Architect/SRE Engineer, Flashtalking Inc., Spongecell Inc.

2017 - 2018

CoE Lead Configuration Engineer, Luxoft Professional LLC

2016 - 2017

IT System Architect, Double LLC

2014 - 2016

Head of Infrastructure Projects Department, Energosoft IK LLC  
Infrastructure Expert

2007 - 2014

Infrastructure Expert, PSI Energo LLC, Novintech ZAO  
Chief Specialist,  
Leading Specialist

2006 - 2007

System Administrator, Solvo International LLC

2004 - 2006

Senior System Administrator/Security Officer, IT Land Pte Ltd

2002 - 2004

CTO, Vilvit ZAO  
Software Engineer

2000 - 2002

IT Systems Engineer, Master+++ LLC

\* Passed [HireRight](#) employment background screening in 2017

## SOCIAL

### LinkedIn

<https://www.linkedin.com/in/alexey-aksenov-ezh/>

### GitHub

<https://github.com/ezh>  
<https://github.com/orgs/digimead>  
<https://github.com/orgs/digimead-specific>  
<https://github.com/orgs/sbt-android-mill>

### StackOverflow

<http://stackoverflow.com/users/1233636/ezhik>

### PyPi

<https://pypi.org/user/ezh/>

### Maven

[https://search.maven.org/#search|ga|1|g%3A"org.digimead"](https://search.maven.org/#search|ga|1|g%3A)

### Docker Hub

<https://hub.docker.com/u/ezh1k>

# FORMAL EDUCATION & PROFESSIONAL DEVELOPMENT

2018 RedHat

**D0280R Red Hat OpenShift Administration I**

2018 edX

**LFS158x Introduction to Kubernetes**

2016 PSI Software AG

**Pre-sales Engineering PSIcontrol**

2012 ANO DPO training center "Distanciya", Moscow, Russia

**Structural Engineering: Projects of measures for environmental protection**

2012 PSI Software AG

**Pre-sales Engineering PSIcontrol**

2011 "Interdisciplinary Institute of Training Staff and Information" MIPKI, Saint Petersburg, Russia

**БС-08.1.341 Installation of Equipment of Space Infrastructure**

2009 Cisco

**CCNA Cisco Certified Network Associate, 400650910653FSZL**

2008 REDCENTER LTD

**642-515 Securing Networks with Cisco ASA Advanced**

2007 PSI Software AG

**System Installation & Administration for PSIcontrol**

2006 "Specialist" Training Center, Moscow State Technical University n.a. N.E. Bauman

**SCNA-ASI Security Certified Network Architect, Advanced Security Implementation**

2006 "Specialist" Training Center, Moscow State Technical University n.a. N.E. Bauman

**SCNA-ESI Security Certified Network Architect, The Enterprise Security Implementation**

2005 Cisco

**CCNA Cisco Certified Network Associate, 385174306791ARBM**

2004 Pearson VUE

**Security Certified Network Professional, SCNP.007.1324**

2004 "Specialist" Training Center, Moscow State Technical University n.a. N.E. Bauman

**SCNP-NDC Security Certified Network Professional, Network Defense and Countermeasures**

2004 "Specialist" Training Center, Moscow State Technical University n.a. N.E. Bauman

**SCNP-HTI Certified Network Professional, Hardening the Infrastructure**

1998 - 2003 Russian State Technological University named after K.E. Tsiolkovsky (MATI)

**Master in Aerospace Engineering, Mathematics**

## TOOLSTACK

There is a list of everyday tools.  
It gives a rough idea about the latest scope.

### Delivery

AWS ELB/ALB/NLB

HA Proxy

Highwinds StrikeTracker CDN

Nginx

Traefik

Varnish

### Development

Ant/Maven

Git-Flow, BFG Git cleaner

Gradle

Gulp

Scala Build Tool

Waf

### Infrastructure

Jenkins

Terraform

SaltStack

### Monitoring

AWS CloudWatch

Grafana

Graylog

Kibana

OpsGenie

Prometheus

Sentry

### Platform

AWS ECS

AWS Elastic BeansTalk

Kubernetes/AWS EKS

Mesos, Marathon

### Warehouse

AWS Dynamo DB

ElasticSearch

InfluxDB

MySQL/AWS Aurora

PostgreSQL/AWS Aurora

Redis/AWS ElastiCache

## RELATED ACTIVITIES & INFORMATION

### SaltStack Contributor

<https://saltstack.com/> - Python software to automate the management and configuration of any infrastructure or application at scale. The next link contains records of my efforts:

<https://github.com/saltstack/salt/issues?q=ezh>

My contributions were also accepted by SaltStack Pepper REST client.

### Open Source Community Member

I'm eager for knowledge. From time to time, I'm trying something new. There is no ideal software, and each code contains bugs. For example, the Docker project had more than 3500 issues at the beginning of 2020. And the probability of finding one more bug is high enough when I'm working with a new version of a tool.

I'm trying to provide feedback to developers if I have spare time. And I happy to prepare PR for an upstream if it is consistent with my current goals. There is the link below of my activities on GitHub:

<https://github.com/search?q=commenter%3Aezh+type%3Aissue>

### Source Code

I'm happy to provide the source code of my projects for review. Some of the repositories are private, but I'm ready to share them in acquainting purposes. As a beautiful example, Python tool for a fuzzy finder that is fully compliant with SDLC best practices, even CHANGELOG.md file is autogenerated for each release - <https://github.com/ezh/cloudselect>. Feel free to request Groovy, Python, Scala or Typescript/NodeJS examples.

# PROFESSIONAL EXPERIENCE

## IT System Architect/SRE Engineer

FlashTalking Inc., Spongecell Inc. - The global ad server and analytics technology company

<https://www.flashtalking.com/about>

since Sep 2018

My primary activity depends on the project/team; there could be a few in parallel;  
I'm building multi-tenancy clouds in AWS geo-distributed environment;  
I'm using software management tools, container orchestrators, build farms, CI/CD to achieve the goals;  
My key points are event-driven reactive provisioning, configuration, and management across all devices;  
My fundamental approaches are Infrastructure as a code versus manual or semi-automated steps; CODE everywhere as much as possible;  
My thing is a test coverage of infrastructure stuff  : load balancers, security rules, equipment, etc.

\* Spongecell was acquired by Flashtalking on Jan 29, 2018

## CoE Lead Configuration Engineer

Luxoft Professional LLC - DXC Technology Company, a digital strategy and software engineering firm

<https://www.luxoft.com/about-us/>

Aug 2017 - Sep 2018

2017 - 2018, participated as **Enterprise Professional Services team member**

A global investment bank and financial services company

- Key responsibilities were related to a stack of enterprise SDLC: cloud orchestrators, servers, *thousands* of source code repositories;
- Developed ETL pipeline for source code metrics, dashboards with interactive analytics and reports with eye candy charts;
- Solved corner cases for source code repositories Git/Subversion/CVS: filtration of blobs, merging/splitting of branches, revisions reshuffling, history recovery/rewriting;
- Communicated with hundreds of application teams: developers, engineers, project owners.

2017, participated as **DevOps Architect**

A global digital industrial company

- Key responsibility is to perform architecture related activities associated with developing and maintaining CI infrastructure;

2017, participated as **DevOps Engineer**

Internal Luxoft project

- Developed a solution to gather statistics to analyze the performance of applications from Atlassian stack;  
Solution format: Docker container for Kubernetes environment.

\* CoE - Center of Excellence

\* SDLC - Software Development Life Cycle

## IT System Architect

Double LLC - Big data search, storage and mining for financial sector

<https://doubledata.ru/en/about.html>

Sep 2016 - Aug 2017

Key responsibilities were:

- Keeping 99.(9)% automation;
- Developing Infrastructure as a code;
- Delivering services as containers;
- Documenting everything.

Implemented and enforced CI/CD standards for company products and services: (re)designed naming conventions, user access policies, source code repositories structures and workflow behaviors, development policies;

Collected development/R&D/sales teams' requirements and provided solved cases in the form of source code, with mandatory test suites if applicable or in the form of presentations;

Provided management with estimates based on benchmarking and best practices;

Participated in countless technical exchange meetings as a technical contributor;

Developed seamless AWS cross-account, multi-region pipelines for S3/EC2 based services. Attached regional IaaS as local endpoints to the core environment. Wrote Amazon scenarios that control resources usage, bought spot instances, etc.;

Designed and implemented backup solutions for "infinite" data sequences;

Designed and implemented monitoring solutions for particular workflows;

Maintained, updated PKI entities, services and user accounts.

# PROFESSIONAL EXPERIENCE<sub>/2007 - 2016/</sub>

## Head of Infrastructure Projects Department, Infrastructure Expert

Energosoft IK - Systems Integrator of the Russian energy grid system

<http://energosoft.ru/en/group/group/>

Feb 2014 - Sep 2016

Participated as a technical lead, an architect and a technical expert in the following projects:

2015 – Integration of «SCADA PSI Control» NCC Backup «Samara Distribution Grids» branch of JSC «IDGC of Volga», Samara.

2014 – Integration of «SCADA PSI Control» NCC «Orenburgenergo» branch of JSC «IDGC of Volga», Orenburg;

Participated as final level support for the above projects and the projects of the PSI Energo LLC, Novintech ZAO.

\* IDGC - Interregional Distribution Grid Company

\* NCC - network control center

## Infrastructure Expert, Chief Specialist, Leading Specialist

PSI Energo LLC, Novintech ZAO - Systems Integrators of the Russian energy grid system

Apr 2007 - Feb 2014

Participated as a technical lead, architect, technical expert, paperwork specialist, field engineer in the scope of the following projects:

2012 – Integration of «SCADA PSI Control» NCC «Chuvashenergo» branch of JSC «IDGC of Volga», Chuvashia;

2011 – Integration of «SCADA PSI Control» NCC «Eastern Electric Transmission Networks Of Sverdlovenergo» branch of JSC «IDGC of Urals», Yekaterinburg;

2010 – Integration of video wall based on ORION plasma panels 6x3 for NCC «Noyabrsk Electric Grids» branch of JSC «Tyumenenergo», Noyabrsk;

2009 - Integration of video wall based on ORION plasma panels 6x3 for NCC «Nefteyugansk Electric Networks» branch of JSC «Tyumenenergo», Nefteyugansk;

2009 - Integration of «SCADA PSI Control» NCC «Samara Distribution Grids» branch of JSC «IDGC of Volga», Samara;

2009 - Integration of «SCADA PSI Control» NCC «Ulyanovsk Distribution Grids» branch of JSC «IDGC of Volga», Ulyanovsk;

2009 - Integration of «SCADA PSI Control» NCC «Volgogradenergo» branch of JSC «IDGC of Volga», Volgograd;

2009 – Design and implement Extended Operator Workplace. Videowall – 12 units, EOW – 4 units;

2009 – Research and implement a turnkey solution based on Sun hardware, for internal and outsource employers;

2008 - Integration of «SCADA PSI Control» NCC «Nefteyugansk Electric Networks» branch of JSC «Tyumenenergo», Nefteyugansk;

2008 - Integration of «SCADA PSI Control» NCC IDGC of the North-West, subsidiary of PJSC «Rosseti», Saint Petersburg;

2007 - Integration of «SCADA PSI Control» NCC «Ivenergo»; branch of JSC «IDGC of Center and Volga Region», Ivanovo;

2007 - Integration of «SCADA PSI Control» NCC «Vladimirenergo» branch of JSC «IDGC of Center and Volga Region», Vladimir.

Designed and implemented various turnkey proposals based on Cisco network equipment and server equipment from Sun Microsystems, Oracle, HP, IBM:

- Designed solution on [Sun/Oracle SunBlade 6000](#) chassis and [HP BladeSystem c7000](#) as an example;
- Utilized Sun StorageTek FC SAN arrays, tape storage libraries, etc.;
- Built Linux multi-head workplaces up to 8 displays, Sun workplaces up to 4 displays, multi-head Sun Ray configurations for operation centers;
- Configured seamless integration between multi-head workplaces and [Barco LED-lit video walls](#) up to 12 cells.

Participated as final level support for most of the above projects.

\* IDGC - Interregional Distribution Grid Company

\* NCC - network control center

# PROFESSIONAL EXPERIENCE<sub>/2000 - 2007/</sub>

## **System Administrator**

Solvo International LLC - Content provider

|                     |  |
|---------------------|--|
| Dec 2006 - Mar 2007 | <p>Supervised the migration process as a part of the migration team:</p> <ul style="list-style-type: none"><li>• Conducted research via trade publication, catalogs, etc. to identify potential software or hardware that meets the business needs;</li><li>• Completed the IT system audit;</li><li>• Designed the migration plan as the outcome of IT audit;</li></ul> <p>Rewrote documentation of legacy components for internal purposes;<br/>Provided the final level support for company services.</p> |
|---------------------|--|

## **Senior System Administrator/Security Officer**

IT Land Pte Ltd / Millennium Distribution Group - IT components distributors, exporter, importer

|                     |  |
|---------------------|--|
| May 2004 - May 2006 | <p>Configured and maintained *nix servers;<br/>Developed a network security policy, network structure, packet filters rules, security audit rules;<br/>Implemented network services and related components for monitoring and accounting;<br/>Implemented and maintained WAN cloud based on IPSEC, PPTP between Head Office and Branch ones;<br/>Maintained backbone LAN/WAN infrastructure;<br/>Tested network and server equipment, communicated with technical supports, supervised requests for RMA;<br/>Managed company purchases of IT-related requirements;<br/>Participated in investigations of complex IT cases.</p> |
|---------------------|--|

## **CTO, Software Engineer**

Vilvit JSC - Homelan ISP, less than 500 users

|                     |   |
|---------------------|---|
| Nov 2002 - Feb 2004 | <p>Designed and implemented a turnkey solution for ISP infrastructure:</p> <ul style="list-style-type: none"><li>• Developed and maintained accounting software;</li><li>• Designed network topology;</li><li>• Tested, ordered, setup and install the core and backbone equipment;</li></ul> <p>Maintained a high customer satisfaction rating;<br/>Acted as the final level of the technical support for complex issues;<br/>Worked as a mentor/trainer to field engineers.</p> |
|---------------------|---|

## **IT Systems Engineer**

Master+++ LLC - IT outsourcing services for small-size companies

|                     |  |
|---------------------|--|
| Jun 2000 - Oct 2002 | <p>Maintained the whole IT infrastructure of educational an institution, about 100 users:</p> <ul style="list-style-type: none"><li>• switches</li><li>• firewalls</li><li>• routers</li><li>• servers</li><li>• workstations</li></ul> <p>Additional responsibilities:</p> <ul style="list-style-type: none"><li>• helpdesk member</li><li>• installing, maintaining and repairing simple IT equipment</li><li>• clients relationship</li><li>• prolongation of contracts</li></ul> |
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