

Alexey Tsarev

Senior DevOps/SRE Engineer

Web page: <https://alexey-tsarev.github.io>

Email: tsarev.alexey@gmail.com

Skype: [tsarev_alexey](#)

LinkedIn: <https://www.linkedin.com/in/alexey-tsarev>

Summary

I have been in the software industry since the 2000's.

I started as a System Administrator, then became an SRE member with 3+ years of production experience in site reliability support, worked as a DevOps in a Search project and now I am working as a Digital Factory DevOps.

I like to learn new things in software deployment and other close computer areas, like electronics, IoT, programming microcontrollers and home automation.

I have experience working as a Deployment Engineer, a specialist to deploy multi-component services in heterogeneous environments.

I am able to see the big picture and pay attention to small details.

Technical skills

Here is a list of some things I consider as valued:

- Core internet services: DNS, DHCP, HTTP, HTTPS, Email, Proxy, NTP, VPN, etc
- Operating Systems: UNIX/Linux, MacOS, different flavours of Windows
- Cloud: AWS, Azure, GCP, Digital Ocean
- Container Orchestration: Kubernetes, Helm, Werf
- Containerisation: Docker, Docker BuildKit, Docker Compose
- Service Mesh: Istio
- PaaS/SaaS: RDS, Redshift, Google Cloud Dataproc, Azure SQL, Azure Cosmos DB, Mongo Atlas
- Deployment: Terraform, Terraform Cloud, Terragrunt, Tonomi, Ansible
- CI/CD: GitLab CI/CD, Azure DevOps, Jenkins, Nexus Gerrit, Maven, Gradle
- Monitoring: Elasticsearch, Kibana, Prometheus, Grafana, Zabbix, Splunk
- Tracing requests: OpenTelemetry/agents, Datadog, Data Prepper, Zipkin, Jaeger, Elasticsearch/Opensearch
- Cloud related tools: Packer, Vagrant, Consul, Vault
- Virtualisation: VirtualBox, QEMU/KVM, VMware ESXi, Proxmox
- Languages: Bash, Python, C, C++, Kotlin, Java, PHP, Groovy, NodeJS
- Databases: PostgreSQL, Microsoft SQL Server, MySQL, Oracle DB, FireBird
- NoSQL: MongoDB, Redis
- Messages: Kafka
- Tests: coverage (JUnit, Cobertura, Lettuce, Jagger, JMeter, Selenium)
- HA: HAProxy, Nginx, Envoy
- Application Servers: Apache Tomcat, WebLogic
- Security: SSL, iptables, patches, audit
- Other: Backuping, Remote access (NoMachine, Citrix, X2Go), Xceedium, Net Diagnostics

Education and Certificates

Dec, 2019

[Kubernetes](https://github.com/Alexey-Tsarev/Kubernetes_learning) / https://github.com/Alexey-Tsarev/Kubernetes_learning

Aug, 2017

[DevOps to Infrastructure Engineer \(AWS\)](#) / [Download certificate](#)

1997 - 2002

Saratov State Technical University

Faculty of Electronics and Instrumentation, Control and Information Science in Engineering Systems.

Master of science degree in Management Information Systems.

[Download diploma evaluation.](#)

[Download diploma translation.](#)

Professional Experience

01/2020 - present, DevOps at DecisionMapper

From October 2021

Keywords: AWS, GitLab, EKS, Docker, BuildKit, Werf, Helm, Terraform, Terragrunt, MongoDB, PostgreSQL, Liquibase, Nginx, Kotlin, Java, Gradle, NodeJS, npm, JavaScript, Frontegg, Fastly CDN.

Dev infrastructure and SRE related things for one of the company's clients.

A Social Network outsourcing project for a client from the list of top 10 USA largest banks.

That internal project is intended to run in Kubernetes and in a cloud.

A classic micro-services structure: frontend, backends, DB.

DevOps related items:

- cloud infra related items: write Terraform, Terragrunt code, TF apply/destroy environments
- Kubernetes: write Helm charts, use Werf tool
- access to EKS deployed in private network from GitLab agent
- containerisation of main apps using Docker and Moby's BuildKit and jib.
- CI pipeline related items: apps build using Docker, automatised of GitLab agent deployment
- Liquibase DB migrations automatised (MongoDB, PostgreSQL)
- NodeJS/npm: change values in static files after build (support multi envs, env specific variable values)
- Nginx: frontend - implement access to internal EKS services using the location directive
- Work with Fastly CDN (Fastly Compute@Edge platform)

SRE related items:

- expose metrics, fix and add new alerts
- Cypress test system with publishing results as a Prometheus metrics
- trace requests stack: OpenTelemetry agents, Zipkin, Jaeger, Elasticsearch, Opensearch

From November 2020

Dev and improve existing modules for one of the company's clients (outsourcing).

That project is based on microservices working in Kubernetes.

It's ready to operate in the following clouds: AWS, Azure, GCP.

Amend existing modules, including monitoring related things, like OpenDistro Alerting, AWS Cloud Watch, AWS Log Group, AWS Lambda, AWS Elasticsearch, Kibana, Prometheus, Grafana.

Technologies: Terraform, Kubernetes, Helm, Azure DevOps, RDS, Redshift, etc...

07/2020 - 11/2020, Senior DevOps Engineer, Grid Dynamics at Inspire Brands

Build a new cloud infrastructure for Inspire Brands.

Technologies:

- GitLab CI/CD
- Terraform and Terraform Cloud
- Microsoft Azure: Minaged Identities, AKS, Azure SQL, Cosmos DB
- Helm
- write some migration code for Cosmo DB (Java/mongobee, GitLab CI)
- and many others!

Responsibilities:

- Make/change Terraform configuration for components
- Deploy new infrastructure version
- GitLab CI/CD pipelines

Achievements:

- Experience in Microsoft Azure, GitLab CI/CD, Terraform Cloud
- ... TBD...

04/2020 - 07/2020, Senior DevOps Engineer, RnD project at Grid Dynamics

RnD (Research and Development) project related to a Service mesh. Service mesh is an application networking middleware.

Technologies:

- Istio (primary goal)
- AWS, GCP
- Terraform
- Docker
- GKE, EKS, Minikube
- Helm
- Consul
- Vault
- MySQL
- MongoDB

Achievements:

- Successfully developed and demoed a "pet" cloud infrastructure, based on [Microservices Demo](#) with many changes in K8s+Istio.

07/2017 - 04/2020, Search DevOps Engineer, Grid Dynamics at Kohl's

Search (Solr) Engineer.

Responsibilities:

- Search Application Deployment and Support
- Deploy/Test/Destroy/Report orchestration via Jenkins jobs
- Cloud deployment automatisaton (Tonomi, Bash)
- Containerisation Search related tools (Docker, Tomcat, Kafka, MongoDB)
- Support/Development of cloud search orchestration tools (Python)
- Cloud Dataproc deployment
- Kafka tests writing
- Integration tests fixing
- Issue tracking/resolution
- Jenkins jobs support/development
- Documentation writing (release notes, guidelines)
- Performance analysis

Achievements:

- Knowledge in GCP, Tonomi, Jenkins, Terraform, Consul, Vault
- Experience in CI/CD infrastructure
- A lot of changes in orchestration scripts
- Indexing data on a Dataproc cluster side

01/2014 - 07/2017, Site Reliability Engineer, Grid Dynamics at Kohl's

Kohl's site support (<http://www.kohls.com>).

L2/L3 backend/frontend support aligned at avoiding production issues.

Responsibilities:

- Log monitoring
- Being present at production deployments
- Post deployment validations
- Meetings with other Teams (GigaSpaces Team, Offers, Solr, etc)
- Issue tracking / resolution
- Tools development
- Development dashboards for Splunk
- Documentation writing (release notes, scope documents, guides)
- Applying changes to tools built by the Team
- Performance analysis
- GNU Linux support (+automatisation: Docker, Ansible and etc)
- Cloud Solr support (AWS)

Achievements:

- Plan / implement validation tools
- Experience in CI-CD infrastructure, Git, Code review
- Onsite USA Peak 2015 Support
- Work with Docker and Ansible
- Experience in Amazon Cloud
- Making changes in Kohl's production components
- Kohl's Batch Job improvements
- Changes related to ".properties" files (separated envs, prepared scripts for easy deploy and a password file creating)
- Created Solr indexing jobs (esk008, esk630)
- Xceedium Automatisation
- Examine Cavisson tools
- Explore ETCD
- Work with Tonomi
- ".properties" files compare tool (Config Compare Tool)

Technologies: Java, Spring, Hibernate, Maven, Python, Shell, Jenkins, Nexus, MySQL, Zabbix, HAProxy, AWS, VirtualBox, Vagrant, Git, Gerrit, JSON, XML, YAML, Xceedium, Net Diagnostics.

01/2007 - 09/2013, Leading specialist, Bank "RUSSLAVBANK"

Worked as a System Administrator doing operations that support approximately 50 users (+1 remote location).

Responsibilities:

- Helpdesk and remote desktop support for end users (Email, phone, DameWare Mini Remote Control, TeamViewer)
- Windows Servers support: Active Directory, DHCP, DNS, reverse DNS, WINS, WSUS (Windows 2003)
- Support of automated banking system RSBank and bank specific software
- Set up and support Novell NetWare server 6.5
- Install and support Lotus Notes 7.0.2 server (Windows 2003)
- Maintain Firebird database server
- Supervise Kaspersky Security Center / Endpoint Security, ESET NOD32 antivirus
- Supervise at bank transport system RSMail
- Configure NTPD server (Scientific Linux)
- Support wiki web portal, photo gallery (Apache, php, MySQL)

Achievements:

- Organize automatic receiving and transmitting email system (The Bat!, PHP)
- Realize Windows domain Administration, Network Administration
- Install / upgraded two VMware ESXi servers (HP DL360G5)
- Convert approximately 10 physical computers / servers to VMware ESXi / Player virtual machines
- Construct backup of virtual machines (ESXi, ghettoVCB.sh) to NFS share (Windows 2003)
- Devise "smart" backup for quick closing of the bank operation day (nnCron, php, nnBackup, Autolt)
- Backup on tape using ARCServe Backup
- Make VPN between Saratov branch and headquarter bank; Saratov branch and other branches (Check Point UTM-1 Edge, Check Point NGX)
- Make / support web application for payment to Rostelecom provider (Windows XP, Apache, php, Microsoft SQL Server 2000, PKCS cipher)
- Develop scripts providing file encryption (Verba cipher: Windows XP, cipher Verba, php; Crypton cipher: DOS 6.22, batch)
- Make popup messages of incoming / outgoing calls (PBX call log, php, Openfire, Spark)

Technologies: RSBank, Windows Servers, VMware ESXi, CheckPoint, ARCServe Backup, IBM Lotus Notes, Microsoft SQL Server, Novell NetWare, PHP, Batch, Autolt, Cryptography.

2005 - 2007, System Administrator Assistant, Vita-Print
IT Support.

Responsibilities:

- Provide support for approximately one hundred end-users
- Manage Active Directory, DNS, DHCP
- Maintain Citrix MetaFrame Server (users are thin clients to 1C)
- Support Microsoft SQL Server (1C databases)
- Service Microsoft Exchange Server
- Support ISA server, file server
- Install / Administrate company web server (Linux, Apache, php, MySQL, vsftpd)

Achievements:

- Realize Network Administration, PBX Samsung Administration

Technologies: Windows Servers, Network protocols, Linux LAMP stack.

2004 - 2005, Freelancer

Linux System Administrator.

Achievements:

- Organize OpenVPN / PPTP / L2TP server (Ubuntu LTS as server, Windows XP as client, Raspberry Pi as client)
- Monitor UPS (NUT, php)
- Set up Squid proxy, Ziproxy (Ubuntu LTS)
- Administrate Virtual Dedicated Server (Parallels Virtuozzo container, Fedora Core 7)
- Install / support LAMP server (Fedora Core 7 Linux, Apache 2 as a backend, MySQL, PHP, nginx as a frontend)
- Organize backup of VPS (FSBACKUP, Duplicity)
- Explore Proxmox VE (for temporary tasks)
- Provide QEMU virtual machine with ARM processor (cross-compilation for Android)

Technologies: NetWork protocols, VPN, LAMP.

2003 - 2004, Software Engineer, Bank "Econombank"

Support the "Volga" bank system.

Responsibilities:

- Maintain ATMs
- Collect ATMs logs
- Upgrad ATMs software's
- Compose vary reports basis on plastic card transaction log (Microsoft SQL Server 2000, Query Analyzer)
- Company's web site support

Achievements:

- Make changes of site on internal web server and then upload them to the public internet site (ALT Linux Master / PHP)

Technologies: LAMP, Microsoft SQL, Bank specific software.

1999 - 2002, Programmer, Kurer

Responsibilities:

- Remote support for users (Radmin)
- Provide internet access (Squid, NAT)
- Support web and email servers

Achievements:

- Work on a design of Windows 2000 server using Active Directory, DNS, DHCP, System Security
- Develop internal database (C++ Builder, dbf, FastReport)
- Administrate LAMP server (Red Hat Linux 7.3)
- Realize / supported company web site (php)
- Install Postfix server and Cyrus-imapd server

Technologies: Network Protocols, Email, PHP, C++ Builder.