DevOps Fundamentals Course Handout

Would you like to know more? This handout and bibliography provides definitions of terms used in the course as well as links to the topics, tools and resources we reference.

Index:

Introduction

Your fearless instructors are:
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https://theagileadmin.com/

Chapter 1: DevOps Basics

What Is DevOps?

DevOps - is the practice of operations and development engineers participating together through the entire service lifecycle; from the design and development process all the way to production support. DevOps is also characterized by operations staff making use of many of the same techniques as developers for their systems work.
https://theagileadmin.com/what-is-devops/

2015 State of DevOps Report
https://puppet.com/resources/white-paper/2015-state-devops-report

2016 State of DevOps Report
https://puppet.com/resources/white-paper/2016-state-devops-report

DevOps Core Values: CAMS

CAMS - Culture, Automation, Measurement, Sharing
What DevOps Means To Me, by John Willis https://www.chef.io/blog/2010/07/16/what-devops-means-to-me/

DevOps Culture, by John Willis
http://itrevolution.com/devops-culture-part-1/

People over Process over Tools, by Damon Edwards http://dev2ops.org/2010/02/people-over-process-over-tools/

DevOps Core Values: The Three Ways

The Three Ways

1. Systems Thinking
2. Amplifying Feedback Loops
3. A Culture of Continuous Experimentation and Learning

The Three Ways, by Gene Kim
http://itrevolution.com/the-three-ways-principles-underpinning-devops/

Your DevOps Playbook

5 Key DevOps Methodologies

1. People over Process over Tools
2. Continuous Delivery
3. Lean Management
4. Visible Ops style Change Control
5. Infrastructure as Code

People over Process over Tools, by Damon Edwards
http://dev2ops.org/2010/02/people-over-process-over-tools/

Continuous Delivery, by Jez Humble and David Farley
https://www.amazon.com/Continuous-Delivery-Deployment-Automation-Addison-Wesley/dp/0321601912

2015 State of DevOps Report
https://puppet.com/resources/white-paper/2015-state-devops-report

2016 State of DevOps Report
https://puppet.com/resources/white-paper/2016-state-devops-report

The Amazing DevOps Transformation Of The HP LaserJet Firmware Team (Gary Gruver), by Gene Kim
http://itrevolution.com/the-amazing-devops-transformation-of-the-hp-laserjet-firmware-team-gary-gruver/

Leading the Transformation, by Gary Gruver and Tommy Mouser
http://itrevolution.com/books/leading-the-transformation/

The Visible Ops Handbook: Implementing ITIL in 4 Practical and Auditable Steps, by Gene Kim, Kevin Behr, and George Spafford
https://www.amazon.com/Visible-Ops-Handbook-Implementing-Practical/dp/0975568612

Ten Practices for DevOps Success: 10-6

10 Practices for DevOps Success

6. Embedded Teams
7. Blameless Postmortems

8. Status Pages
9. Developers On Call
10. Incident Command System

Incident Command for IT: What We Can Learn From The Fire Department, by Brent Chapman
https://www.usenix.org/legacy/event/lisa05/tech/chapman.pdf

Keys to SRE, by Ben Treynor
https://www.usenix.org/conference/srecon14/technical-sessions/presentation/keys-sre

Transparent Uptime, by Lenny Rachitsky
http://www.transparentuptime.com/

How Complex Systems Fail, by Dr. Richard Cook
http://web.mit.edu/2.75/resources/random/How%20Complex%20Systems%20Fail.pdf

Blameless Postmortems, by John Allspaw
https://codeascraft.com/2012/05/22/blameless-postmortems/

Ten Practices for DevOps Success: 5-1

10 Practices for DevOps Success

1. Chaos Monkey
2. Blue/Green Deployments
3. Dependency Injection
4. Andon Cords
5. The Cloud

Dependency Injection, by Martin Fowler
http://martinfowler.com/articles/injection.html

Chaos Monkey Released Into The Wild, by Cory Bennett and Ariel Tseitlin
http://techblog.netflix.com/2012/07/chaos-monkey-released-into-wild.html

The Andon Cord, by John Willis
http://itrevolution.com/kata/

DevOps Tools - The Cart Or The Horse?

TL;DR: Both

DevOps Toolchain
https://en.wikipedia.org/wiki/DevOps#DevOps_toolchain

DevOps Borat
https://twitter.com/DEVOPS_BORAT/status/41587168870797312

Chapter 2: DevOps: A Culture Problem

The IT Crowd and the Coming Storm

The IT Crowd
http://www.imdb.com/title/tt0487831/

Dilbert, by Scott Adams
http://dilbert.com/

BOFH, by Simon Travaglia
http://www.theregister.co.uk/data_centre/bofh/

User Friendly, by J.D. Frazer
http://www.userfriendly.org/

Xkcd, by Randall Munroe
http://xkcd.com/

What Is DevOps, by Damon Edwards
http://dev2ops.org/2010/02/what-is-devops/

10+ Deploys Per Day: Dev and Ops Cooperation at Flickr, by John Allspaw and John Hammond
http://www.slideshare.net/jallspaw/10-deploys-per-day-dev-and-ops-cooperation-at-flickr

Use Your Words

Blameless Postmortems contain:

1. A description of the incident
2. A description of the root cause
3. How the incident was stabilized or fixed.
4. A timeline of events including all actions taken to resolve the incident
5. How the incident affected customers
6. Remediations and corrective actions.

Transparent Uptime means:

1. Admit Failure

2. Sound Like A Human
3. Have A Communication Channel
4. Above All Else, Be Authentic

Blameless Postmortems, by John Allspaw
https://codeascraft.com/2012/05/22/blameless-postmortems/

A Guideline for Postmortem Communication, by Lenny Rachitsky
http://www.transparentuptime.com/2010/03/guideline-for-postmortem-communication.html

Rackspace's Public Status Page
https://status.rackspace.com/

Do Unto Others

Trust Blockers:

- Lack of Context
- Conflicting Goals

How To Win Friends and Influence People, by Dale Carnegie
https://en.wikipedia.org/wiki/How_to_Win_Friends_and_Influence_People

How To Say It At Work, by Jack Griffin
https://www.amazon.com/How-Say-Work-Second-Communication/dp/0735204306

The No A**hole Rule, by Robert I. Sutton
https://en.wikipedia.org/wiki/The_No_Asshole_Rule

Getting To Yes, by Robert Fisher and William L. Ury
https://en.wikipedia.org/wiki/Getting_to_Yes

Crucial Conversations, by Kerry patterson, Joseph Grenny, Ron McMillan, and Al Switzler
https://en.wikipedia.org/wiki/Crucial_Conversations:_Tools_for_Talking_When_Stakes_Are_High

Hanlon's Razor
https://en.wikipedia.org/wiki/Hanlon%27s_razor

Ringelmann Effect
https://en.wikipedia.org/wiki/Ringelmann_effect

Parkinson's Law
https://en.wikipedia.org/wiki/Parkinson%27s_law

Dunbar's Number

https://en.wikipedia.org/wiki/Dunbar%27s_number

Is Your Team Too Big? Too Small? What's the Right Number?
http://knowledge.wharton.upenn.edu/article/is-your-team-too-big-too-small-whats-the-right-number-2/

Hubot, a chat bot
https://hubot.github.com/

Web Operations, by John Allspaw and Jesse Robbins
https://www.amazon.com/Web-Operations-Keeping-Data-Time/dp/1449377440

Effective DevOps, by Jennifer Davis and Katherine Daniels
http://shop.oreilly.com/product/0636920039846.do

Throwing Things Over Walls

The Phoenix Project, by Gene Kim, Kevin Behr, George Spafford
https://en.wikipedia.org/wiki/The_Phoenix_Project_(novel)

DevOps Culture, by Martin Fowler
http://martinfowler.com/bliki/DevOpsCulture.html

Shadow IT
https://en.wikipedia.org/wiki/Shadow_IT

Conway's Law
https://en.wikipedia.org/wiki/Conway%27s_law

Operations Maturity Model
https://pages.chef.io/operations-maturity-model

A Typology of Organisational Cultures, by Ron Westrum
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1765804/pdf/v013p0ii22.pdf

Kaizen: Continuous Improvement

Kaizen - change for the better

Kaizen's Guiding Principles

- Good processes bring good results
- Go see for yourself to grasp the current situation (gemba)

- Speak with data, manage by facts
- Take action to contain and correct root causes of problems
- Work as a team
- Kaizen is everybody's business

Kaizen Glossary
https://us.kaizen.com/knowledge-center/glossary.html

When In Japan…, by Ryan Day
http://www.qualitydigest.com/inside/lean-article/100115-when-japan.html#

Kaizen
https://en.wikipedia.org/wiki/Kaizen

Toyota Kata
https://en.wikipedia.org/wiki/Toyota_Kata

5 Whys
https://en.wikipedia.org/wiki/5_Whys

Chapter 3: The Building Blocks of DevOps

DevOps Building Block: Agile

Agile Systems Administration Google Group
https://groups.google.com/forum/#!forum/agile-system-administration

Agile Infrastructure, by Andrew Clay Shafer
http://www.slideshare.net/littleidea/agile-infrastructure-velocity-09

DevOpsDays Ghent 2007
http://www.devopsdays.org/events/2009-ghent/

Opscamp Austin 2010
https://theagileadmin.com/2010/02/05/opscamp-debrief/

Agile Manifesto
http://www.agilemanifesto.org/

Agile Principles
http://agilemanifesto.org/principles.html

10th Annual State of Agile Survey https://versionone.com/pdf/VersionOne-10th-Annual-State-of-Agile-Report.pdf

A DevOps Manifesto, by Ernest Mueller
https://theagileadmin.com/2010/10/15/a-devops-manifesto/

DevOps Building Block: Lean

7 Principles of Lean Software Development

- ELIMINATE WASTE
- AMPLIFY LEARNING
- DECIDE AS LATE AS POSSIBLE
- DELIVER AS FAST AS POSSIBLE
- EMPOWER THE TEAM
- BUILD INTEGRITY IN
- SEE THE WHOLE

The Seven Wastes (Muda) of Lean Software

Waste #1 - Partially Done Work
Waste #2 - Extra Features
Waste #3 - Relearning
Waste #4 - Handoffs
Waste #5 - Delays
Waste #6 - Task Switching
Waste #7 - Defects

Build-Measure-Learn

- BUILD – MINIMUM VIABLE PRODUCT
- MEASURE – THE OUTCOME AND INTERNAL METRICS
- LEARN – ABOUT YOUR PROBLEM AND YOUR SOLUTION
- REPEAT – GO DEEPER WHERE IT'S NEEDED

Lean Manufacturing
https://en.wikipedia.org/wiki/Lean_manufacturing

Lean Software Development: An Agile Toolkit, by Mary and Tom Poppendieck
https://www.amazon.com/Lean-Software-Development-Agile-Toolkit/dp/0321150783

Lean Startup, by Eric Ries
https://en.wikipedia.org/wiki/Lean_startup

Value Stream Mapping
https://en.wikipedia.org/wiki/Value_stream_mapping

DevOps Culture, by John Willis
http://itrevolution.com/devops-culture-part-1/

ITIL, ITSM, and the SDLC

ITSM
https://en.wikipedia.org/wiki/IT_service_management

Opscamp Austin 2010
http://www.johnmwillis.com/opscamp/opscamp-austin-roundup/

ITIL
https://en.wikipedia.org/wiki/ITIL

The Visible Ops Handbook: Implementing ITIL in 4 Practical and Auditable Steps, by Gene Kim, Kevin Behr, and George Spafford
https://www.amazon.com/Visible-Ops-Handbook-Implementing-Practical/dp/0975568612

Chapter 4: Infrastructure Automation

Infrastructure As Code

Infrastructures.org
http://www.infrastructures.org/

Architectures for open and scalable clouds, by Randy Bias
http://www.slideshare.net/randybias/architectures-for-open-and-scalable-clouds

Infrastructure as Code, by Martin Fowler
http://martinfowler.com/bliki/InfrastructureAsCode.html

Golden Image to Foil Ball

Provisioning is the process of making a server ready for operation, including hardware, OS, system services, network connectivity.

Deployment is the process of automatically deploying and upgrading applications on a server.

Orchestration is the act of performing coordinated operations across multiple systems.

Configuration management is an overarching term dealing with change control of system configuration after initial provision, but is often also applied to maintaining and upgrading application and application dependencies.

Imperative - also known as "procedural," this is an approach where commands desired to produce a state are defined and executed.

Declarative - also known as "functional," this is an approach where you define a desired state and the tool converges the existing system on the model.

Idempotent - the ability to execute the CM procedure repeatedly and end up in the same state each time.

Self service - is the ability for an end user to kick off one of these processes without having to go through other people.

Server Provisioning
https://en.wikipedia.org/wiki/Provisioning#Server_provisioning

Golden Image or Foil Ball, by Luke Kanies
http://madstop.com/post/85950592485/golden-image-or-foil-ball-repost

Canary Release, by Martin Fowler
http://martinfowler.com/bliki/CanaryRelease.html

Blue-Green Deployment, by Martin Fowler
http://martinfowler.com/bliki/BlueGreenDeployment.html

Immutable Deployment

AMI Creation with Aminator, by Michael Tripoli & Karate Vick
http://techblog.netflix.com/2013/03/ami-creation-with-aminator.html

Immutable Server, by Martin Fowler
http://martinfowler.com/bliki/ImmutableServer.html

Immutable Delivery, by John Willis
https://theagileadmin.com/2015/11/24/immutable-delivery/

CMDB
https://en.wikipedia.org/wiki/Configuration_management_database

The CMDB is Dead, Long Live the CMDB, by Rhonabwy
https://rhonabwy.com/2010/07/18/the-cmdb-is-dead-long-live-the-cmdb/

Hadoop and Zookeeper
http://hadoop.apache.org/

Awesome Sysadmin tool list, by Francisco Augusto
https://github.com/kahun/awesome-sysadmin

Collins
http://tumblr.github.io/collins/

Your Infrastructure Toolchain

AWS Cloudformation
https://aws.amazon.com/cloudformation/

Azure ARM Templates

https://azure.microsoft.com/en-us/documentation/templates/

Hashicorp Terraform
https://www.terraform.io/

Ubuntu Juju
http://www.ubuntu.com/cloud/juju

Chef
https://www.chef.io/

Puppet
https://puppet.com/

Ansible
https://www.ansible.com/

Saltstack
https://saltstack.com/community/

Cfengine
https://cfengine.com/

Rubocop
http://batsov.com/rubocop/

Foodcritic
http://www.foodcritic.io/

Chefspec
https://docs.chef.io/chefspec.html

kitchenCI
http://kitchen.ci/

Ohai
https://docs.chef.io/ohai.html

Etcd
https://coreos.com/etcd/docs/latest/

Zookeeper
https://wiki.apache.org/hadoop/ZooKeeper

Consul
https://www.consul.io/

Docker
https://www.docker.com/

Docker swarm
https://docs.docker.com/swarm/

Kubernetes
http://kubernetes.io/

Mesos
http://mesos.apache.org/

Rancher
http://rancher.com/

Google cloud platform container engine
https://cloud.google.com/container-engine/docs/

Amazon ECS
https://aws.amazon.com/ecs/

habitat
https://www.habitat.sh/

Chapter 5: Continuous Delivery

Small + Fast = Better

Continuous Delivery has the following benefits:

1. Time to market goes down
2. Quality increases not decreases
3. Limits your Work In Progress
4. Shortens lead times for changes
5. Improves Mean Time To Recover

Continuous Delivery, by Jez Humble and David Farley
https://www.amazon.com/Continuous-Delivery-Deployment-Automation-Addison-Wesley/dp/0321601912

Deming's 14 Key Points
https://www.deming.org/theman/theories/fourteenpoints

Continuous Integration Practices

To successfully perform Continuous Integration:

1. Builds should pass the coffee test (< 5 minutes)
2. Commit really small bits
3. Don’t leave the build broken
4. Use a trunk based development flow
5. Don't allow flaky tests, fix them!
6. The build should return a status, a log, and an artifact

The Continuous Delivery Pipeline

To successfully perform Continuous Delivery:

1. Only build artifacts once
2. Artifacts should be immutable
3. Deployment should go to a copy of production before going into production
4. Stop deploys if it a previous step fails
5. Deployments should be idempotent

The Role Of QA

Types of Testing:

- Unit Testing
- Code Hygiene
- Integration Testing
- TDD / BDD /ATDD
- Infrastructure Testing
- Performance Testing
- Security Testing

The Difference Between TDD, BDD, and ATDD
http://www.assertselenium.com/atdd/difference-between-tdd-bdd-atdd/

Your CI Toolchain

Version Control

Git
https://git-scm.com/

Subversion
https://subversion.apache.org/

Github
https://github.com/

Bitbucket
https://bitbucket.org/

Perforce
https://www.perforce.com/

Continuous Integration

Jenkins
https://jenkins.io/

GoCD
https://www.go.cd/

Bamboo
https://www.atlassian.com/software/bamboo

TeamCity
https://www.jetbrains.com/teamcity/

Travis CI
https://travis-ci.org/

Circle CI
https://circleci.com/

Build

Make
https://www.gnu.org/software/make/

Rake
https://github.com/ruby/rake

Maven
https://maven.apache.org/

Gulp
http://gulpjs.com/

Packer
https://www.packer.io/

Fpm
https://github.com/jordansissel/fpm/wiki

Test

JUnit
http://junit.org/junit4/

Golint
https://github.com/golang/lint

Go fmt
https://golang.org/cmd/gofmt/

Rubocop
http://batsov.com/rubocop/

Findbugs
http://findbugs.sourceforge.net/

Robot Framework
http://robotframework.org/

Protractor
http://www.protractortest.org/#/

Cucumber
https://cucumber.io/

Selenium
http://www.seleniumhq.org/

Sauce Labs
https://saucelabs.com/

KitchenCI
http://kitchen.ci/

Apachebench
https://httpd.apache.org/docs/2.4/programs/ab.html

JMeter
http://jmeter.apache.org/

Gauntlt
http://gauntlt.org/

Mittn
https://github.com/F-Secure/mittn

Artifact Repository

Artifactory
https://www.jfrog.com/artifactory/

Nexus
http://www.sonatype.org/nexus/

Bintray
https://bintray.com/

Dockerhub
https://hub.docker.com/

Amazon S3
https://aws.amazon.com/s3/

Deployment

Rundeck
http://rundeck.org/

Urbancode
https://developer.ibm.com/urbancode/products/urbancode-deploy/

Thoughtworks
https://www.thoughtworks.com/continuous-delivery

Deployinator
https://github.com/etsy/deployinator

Tool Discovery Trick: Google one of these names "vs" and you'll get autosuggestions of that tool versus other tools in its space other people are asking about!

Chapter 6: Reliability Engineering

Engineering Doesn't End With Deployment

Reliability Engineering
https://en.wikipedia.org/wiki/Reliability_engineering

2015 State of DevOps Report
https://puppet.com/resources/white-paper/2015-state-devops-report

2016 State of DevOps Report
https://puppet.com/resources/white-paper/2016-state-devops-report

Devops Areas - Codifying devops practices, by Patrick Debois
http://www.jedi.be/blog/2012/05/12/codifying-devops-area-practices/

Site Reliability Engineering, by Betsy Beyer, Chris Jones, Jennifer Petoff, Niall Richard Murphy
http://shop.oreilly.com/product/0636920041528.do

Design For Operation - Theory

Design Patterns, by Erich Gamma, Richard Helm, Ralph Johnson, John Vlissides
https://www.amazon.com/Design-Patterns-Elements-Reusable-Object-Oriented/dp/0201633612

Release It!, by Michael Nygard
https://pragprog.com/book/mnee/release-it

Hystrix
https://github.com/Netflix/Hystrix

The Twelve-Factor App
http://12factor.net

Martin Fowler’s Architecture Descriptions
http://martinfowler.com/bliki/

Design For Operation - Practice

Netflix' Chaos Monkey
http://techblog.netflix.com/2012/07/chaos-monkey-released-into-wild.html

Frequency Reduces Difficulty, by Martin Fowler
http://martinfowler.com/bliki/FrequencyReducesDifficulty.html

AWS outage: How Netflix weathered the storm by preparing for the worst
http://www.techrepublic.com/article/aws-outage-how-netflix-weathered-the-storm-by-preparing-for-the-worst/

Code profiling
https://en.wikipedia.org/wiki/Profiling_(computer_programming)
https://en.wikipedia.org/wiki/List_of_performance_analysis_tools

Operate For Design: Metrics and Monitoring

The 6 Monitoring Areas

1. Service Performance and Uptime
2. Software Component Metrics
3. System Metrics
4. App Metrics
5. Performance
6. Security

How Complex Systems Fail, by Dr. Richard Cook
http://web.mit.edu/2.75/resources/random/How%20Complex%20Systems%20Fail.pdf

A Lean Cloud Monitoring Checklist, by Ernest Mueller
http://slideplayer.com/slide/7650435/

Operate for Design: Logging

Logging and Log Management, by Anton Chuvakin, Kevin Schmidt, and Chris Phillips
http://shop.oreilly.com/product/9781597496353.do

Your SRE Toolchain

Pingdom
https://www.pingdom.com/

Datadog
https://www.datadoghq.com/

Netuitive
http://www.netuitive.com/

Ruxit
https://www.dynatrace.com/platform/offerings/ruxit/

Librato
https://www.librato.com/

New Relic
https://newrelic.com/

AppDynamics
https://www.appdynamics.com/

Statsd
https://github.com/etsy/statsd

Ganglia
http://ganglia.info/

Graphite
https://graphiteapp.org/

Grafana
http://grafana.org/

InfluxDB
https://influxdata.com/

OpenTSDB
http://opentsdb.net/

Metrics
http://metrics.dropwizard.io/

Icinga
https://www.icinga.org/

Sensu
https://sensuapp.org/

Nagios
https://www.nagios.org/

Prometheus
https://prometheus.io/

Sysdig
https://sysdig.com/

Splunk
http://www.splunk.com/

SumoLogic
https://www.sumologic.com/

Logentries
https://logentries.com/

ELK Stack
https://www.elastic.co/webinars/introduction-elk-stack

PagerDuty
https://www.pagerduty.com/

VictorOps
https://victorops.com/

Flapjack
http://flapjack.io/

StatusPage
https://www.statuspage.io/

Rerun
http://rerun.github.io/rerun/

Rundeck
http://rundeck.org/

Chapter 7: Additional DevOps Resources

Unicorns, Horses, and Donkeys, Oh My

The DevOps Donkey Represents the Rest of Us
http://devops.com/2015/05/05/the-devops-donkey-represents-the-rest-of-us/

Gartner Says By 2016, DevOps Will Evolve From a Niche to a Mainstream Strategy Employed by 25 Percent of Global 2000 Organizations
http://www.gartner.com/newsroom/id/2999017

DevOpsDays
http://www.devopsdays.org/

Velocity Conference
http://conferences.oreilly.com/velocity

DevOps Enterprise Summit
http://events.itrevolution.com/

ChefConf
https://chefconf.chef.io/

AWS re:Invent
https://reinvent.awsevents.com/

Monitorama
http://monitorama.com/

Surge
https://surge.omniti.com/2016

Scale

https://atscaleconference.com/

Structure
http://www.structureconf.com/

DevOpsConferences.org
http://devopsconferences.org

Meetup.com
https://www.meetup.com/

Ten Best DevOps Books You Need to Read

The Visible Ops Handbook: Implementing ITIL in 4 Practical and Auditable Steps, by Gene Kim, Kevin Behr, and George Spafford
https://www.amazon.com/Visible-Ops-Handbook-Implementing-Practical/dp/0975568612

Continuous Delivery, by Jez Humble and David Farley
https://www.amazon.com/Continuous-Delivery-Deployment-Automation-Addison-Wesley/dp/0321601912

Release It!, by Michael Nygard
https://pragprog.com/book/mnee/release-it

Effective DevOps, by Jennifer Davis and Katherine Daniels
http://shop.oreilly.com/product/0636920039846.do

Lean Software Development: An Agile Toolkit, by Mary and Tom Poppendieck
https://www.amazon.com/Lean-Software-Development-Agile-Toolkit/dp/0321150783

Web Operations, by John Allspaw and Jesse Robbins
https://www.amazon.com/Web-Operations-Keeping-Data-Time/dp/1449377440

The Practice of Cloud System Administration, by Christine Hogan, Strata R. Chalup, and Thomas A. Limoncelli
http://the-cloud-book.com/

The DevOps Handbook, by Gene Kim, Jez Humble, Patrick Debois, and John Willis
http://itrevolution.com/devops-handbook

Leading the Transformation, by Gary Gruver and Tommy Mouser
http://itrevolution.com/books/leading-the-transformation/

The Phoenix Project, by Gene Kim, Kevin Behr, George Spafford
https://en.wikipedia.org/wiki/The_Phoenix_Project_(novel)

Navigating The Series of Tubes

DevOps Weekly, by Gareth Rushgrove
http://www.devopsweekly.com/
@garethr

DevOps Google Group
https://groups.google.com/forum/#!forum/devops

DevOps Toolchain Google Group
https://groups.google.com/forum/#!forum/devops-toolchain

DevOps.com, Chief Editor: Alan Shimel
http://devops.com/
@devopsdotcom
@ashimmy

DZone
https://dzone.com/devops-tutorials-tools-news

InfoQ
https://www.infoq.com/devops/

DevOps Cafe, by John Willis and Damon Edwards
http://devopscafe.org/
@botchgalupe
@damonedwards

The Ship Show, by J. Paul Reed, Sascha Bates, Pete Cheslock, and Youssuf El-Kalay
http://theshipshow.com/
@jpaulreed
@sascha_d
@petecheslock
@buildscientist

Arrested DevOps, by Matt Stratton, Trevor Hess, and Bridget Kromhout.
https://www.arresteddevops.com/
@arresteddevops
@bridgetkromhout
@mattstratton
@trevorghess

Food Fight, by Nathen Harvey
http://foodfightshow.org/
@foodfightshow
@nathenharvey

DevOps Mastery, by Brian Wagner
http://www.devopsmastery.com/podcasts/
@devopsmaster

Kitchen Soap, by John Allspaw
http://www.kitchensoap.com/
@allspaw

IT Revolution Press, by Gene Kim (and others)
http://itrevolution.com/devops-blog/
@RealGeneKim

Dev2Ops, by Damon Edwards and Alex Honor
http://dev2ops.org/
@damonedwards
@alexhonor

Continuous Delivery, by Jez Humble
https://continuousdelivery.com/blog/
@jezhumble

Stochastic Resonance, by Andrew Clay Shafer
https://stochasticresonance.wordpress.com/
@littleidea

JEDI, by Patrick Debois
http://www.jedi.be/blog/
@patrickdebois

More than Seven, by Gareth Rushgrove
http://www.morethanseven.net/
@garethr

The Agile Admin, by Ernest Mueller, James Wickett, and Karthik Gaekwad
https://theagileadmin.com/
@ernestmueller
@wickett
@iteration1

SlideShare
http://www.slideshare.net/search/slideshow?searchfrom=header&q=devops

YouTube
https://www.youtube.com/results?search_query=devops

Vimeo
https://vimeo.com/search?q=devops

Chapter 8: The Future of DevOps

Cloud to Containers to Serverless

"**cloud computing** is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction"
NIST Special Publication 800-145
http://www.nist.gov/itl/csd/cloud-102511.cfm

RightScale 2016 State of the Cloud Survey
https://www.rightscale.com/lp/state-of-the-cloud

Docker Hub
https://hub.docker.com/

"**Serverless**… is run in stateless compute containers that are event-triggered, ephemeral (may only last for one invocation), and fully managed by a 3rd party."
Serverless, by Martin Fowler
http://martinfowler.com/articles/serverless.html

AWS Lambda
https://aws.amazon.com/lambda/

Zappa
https://zappa.gun.io/

8 Surprising Facts About Real Docker Adoption
https://www.datadoghq.com/docker-adoption/

The Rugged Frontier of DevOps: Security

The Rugged Manifesto
https://www.ruggedsoftware.org/

The DevOps Audit Defense Kit
http://itrevolution.com/devops-and-auditors-the-devops-audit-defense-toolkit/

Chef Audit and Compliance Framework: Inspec
https://www.chef.io/inspec/

ThreatStack
https://www.threatstack.com/

Gauntlt
http://gauntlt.org/

Signal Sciences
https://www.signalsciences.com

AlienVault
https://alienvault.com

Chapter 9: Conclusion

Next Steps: Am I a DevOp now?

Amazon Web Services
https://aws.amazon.com/

Docker
https://docs.docker.com/engine/installation/

Terraform
https://www.terraform.io/
https://hub.docker.com/r/hashicorp/terraform/

Jenkins
https://jenkins.io/
https://hub.docker.com/_/jenkins/

Github
https://try.github.io/

James Wickett (@wickett) and Ernest Mueller (@ernestmueller)
https://theagileadmin.com/