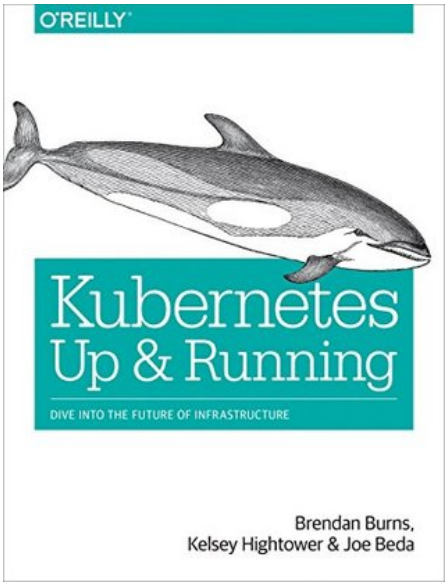

Kubernetes: Up & Running: Dive into the Future of Infrastructure

Kelsey Hightower , Brendan Burns , Joe Beda

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Legend has it that Google deploys over two billion application containers a week. How's that possible? Google revealed the secret through a project called Kubernetes, an open source cluster orchestrator (based on its internal Borg system) that radically simplifies the task of building, deploying, and maintaining scalable distributed systems in the cloud. This practical guide shows you how Kubernetes and container technology can help you achieve new levels of velocity, agility, reliability, and efficiency.

Authors Kelsey Hightower, Brendan Burns, and Joe Beda—who've worked on Kubernetes at Google and other organizatons—explain how this system fits into the lifecycle of a distributed application. You will learn how to use tools and APIs to automate scalable distributed systems, whether it is for online services, machine-learning applications, or a cluster of Raspberry Pi computers.

Explore the distributed system challenges that Kubernetes addresses Dive into containerized application development, using containers such as Docker Create and run containers on Kubernetes, using the docker image format and container runtime Explore specialized objects essential for running applications in production Reliably roll out new software versions without downtime or errors Get examples of how to develop and deploy real-world applications in Kubernetes

Kubernetes: Up & Running: Dive into the Future of Infrastructure Details

Date	:	Published September 7th 2017 by O'Reilly Media (first published January 31st 2016)
ISBN	:	
Author	:	Kelsey Hightower , Brendan Burns , Joe Beda
Format	:	Kindle Edition 202 pages
Genre	:	Science, Technology, Computer Science, Technical, Programming, Nonfiction, Reference, Software, Computers

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Download and Read Free Online Kubernetes: Up & Running: Dive into the Future of Infrastructure Kelsey Hightower , Brendan Burns , Joe Beda

From Reader Review Kubernetes: Up & Running: Dive into the Future of Infrastructure for online ebook

Sankar says

I had high expectations for this books due to the high profiles of the authors. The book is very ordinary. It just introduces what various concepts are (like replicasets, deployments, daemonsets, etc.) at a very beginner level (one per chapter). Nothing is mentioned about how to deploy kubernetes apps in a public cloud, probably, as each of the authors work in different competing companies. Zero information about internals of kubernetes either. The book is neither for beginners nor for advanced users. It just lingers somewhere in between with no justice to either side.

Instead of wasting money (and more importantly time) on this book, you will get far better knowledge, if you spend some time on youtube videos, where all these stuff are explained much more clearly, with live examples. If it were possible to get a refund, I would have asked for it. The book costed a lot more for me, because it was an imported copy and no low-price-edition available in India, which annoyed me more when the book quality was so shallow.

Kawai says

A decent overview of Kubernetes, but it's barely more than a compilation & organization of the docs available on the Kubernetes website. If you haven't gone through those docs--or feel they aren't well organized enough to lead you through, start to finish--then this might be a good starting point. After that, I'd suggest you find other books more likely to give you insight into the CI/CD pipeline one might build, or additional best practices for management of large-scale Kubernetes clusters.

A decent starting point for the platform, but I'm betting there are better in-depth guides out there.

Jakub says

I'm really happy that this was first book about k8s that i've read. It's really good introduction into the topic with some background why things are done this way and not the other way round.

I would say its solid 4. I'm giving 5 as this book helped me a lot with understanding what is what and how this all parts work together to create something bigger. If i would not have a need to that knowledge i would go with 4 stars.

That one missing star: The only thing I was missing was 3-4 words dictionary of all keywords used in book. Instead i was forced to jump between chapters just to understand what he is writing about :)

Erik Molnar says

This is a quick read that gives a good overview of Kubernetes and what it is all about. I have never used it

myself, but there is talk about this being the future of automation. Basically Kubernetes allows you to automate containers. Mainly Docker. I don't know Docker yet either, so I probably should have started there. Apparently Google has been using this for 10 years already, so you know it is legit. It was made open source and expanded upon by the open source community. The appendix in here explains how to build a Raspberry Pi Kubernetes cluster. I may finally have a reason to get a Raspberry Pi. There was not a whole lot of technical information in here. I think this book is more of a show and tell of what it can do. Probably a good place to start if you are new to Kubernetes or are looking to get into it. It gives you plenty of commands to try, but does not go too in depth.

Santiago Coffey says

Very good technical book about deployment, scaling and management of containerized applications, written by some of the engineers who originally developed Kubernetes at Google. This is a new software architecture paradigm that will change how we build, deploy and maintain services in the cloud and will make virtual machine hosted servers obsolete.

Rafaël Garcia-Suarez says

Very good introduction to Kubernetes, that explains the main concepts clearly and progressively. It also nicely explains the architectural choices and the philosophy behind it (being declarative and decoupled).

On the could-have-been-better nitpicking side:
- There are not much details on the underlying SDN; describes the basic configuration and functionality, but does not give pointers to figure out what's happening or how to swap it out.
- The physical architecture of a cluster is not introduced; the notion of “node” is not very well defined.
- Security trade-offs of using secrets are glossed over.
- It's not totally clear from the book how deployments and services interact.
- Nothing on the controller pattern, so important under so hood.
- Here and there I noticed a few harmless typos in code examples.

Highly recommended to Kubernetes beginners.

Sebastian Gebski says

Anyone who had any contact with K8s knows that there's no one better qualified to create a book about it than K. Hightower. So when I've started reading I've already new that it will be either good or very good, nothing less. Apparently, I was right - it's a solid 4.5 & it may get even better in a printed version (I've read an unreleased version with all the chapters, but before the final editing, w/o some diagrams, etc.).

Good stuff? It's definitely successful in introducing the reader into the tech. Clear, proper pace, gets to a sufficient level of detail (at least IMHO). So, basically it meets its primary goal. Drawbacks? There was definitely the need for good diagrams (not present in my version) - hopefully they will be there in the printed one. I also believe that providing some more context, e.g. by comparing K8s to alternative solutions like Docker Swarm, Mesos or Nomad could really help in building the big picture of what kind of needs K8s can fulfil, where it would be a good fit & where not so.

Anyway, it is definitely the best available resource on Kubernetes, so if you're interested in learning a bit about it, this book is a safe bet.

Jaseem says

You cannot make a book about 'death by yaml' any more interesting.

Diego Garcia says

A great introduction to main kubernetes core concepts.
It's a beginners book but is very easy to read.

Leandro López says

I was expecting much more about this book than what currently has. I understand is still a work in progress and several sections seems missing, but some sentences didn't felt right, the examples were utterly simple or just didn't showed up enough information about what was the author trying to achieve. Still is a good beginner level introduction to Kubernetes, but just that.

Ben says

This is a review of the "Early Release" edition.

To be concise: the "Early Release" edition contains typos, a few technical errors, and a host of incomplete sections even within the "available" chapters. The total length is about 90 pages and the list price at the time of writing this review was about $40. This may be a good book eventually, but it is far too early, unpolished, and incomplete a draft to be ready for sale even as an "Early Release."

Perhaps when the full edition is available this book will be worth the time/money. The topic and technology are certainly worth reading about. At the moment though, I would say this book was released before it was ready for sale.

Anton Antonov says

The Kubernetes book we've been waiting for.

If you're using Kubernetes, you probably heard of Kelsey Hightower by now and anticipated a book by him. Well, now partnered with O'Reilly - they deliver!

The book follows the standard narrative of the "Up & Running" series - go through different topics by

providing the minimum valuable code snippets and then build it all up to one big application that showcases everything learnt so far.

Given Kubernetes history of changes, the book manages to cover the things you'll use the most which is `ReplicaSet`s and `Deployment`s, but also do a good job going through the basics which are `Service`, ` and `Pod`.

Pay very close attention to the `Deployment` strategies explained which are `Recreate` and `RollingUpdate`. It covers hard-learnt lessons on production environments for free! You don't have to go through that on your production environment. :)

However there's a bit of lack of "advanced" features such as Ingress/Egress. Although the scenarios where you need them are rare, they're essential to understanding how a Service works.

Laust says

Great for building initial Kubernetes vocabulary and figuring out how everything is intended to be used at the conceptual level. Useful to get bearings, but the official documentation is still necessary to expand on all the details.

The final chapter of examples would have been much improved if the examples had been complete rather than bare minimum. By this I mean including deployments, live- and health-checks, and using secrets in complete examples.

Marko Mudrini? says

This book provides great introduction to Kubernetes workflow. It starts with explaining how infrastructure works, followed by common practices, containers and Docker, and then introduces Kubernetes.

The book is not going too deep into technical details, it explains basic concepts, enough for newcomer to easily understand and utilize them.

Almost all examples are cloud-agnostic, allowing you to follow and test them on any cloud provider or on your own infrastructure. There're instructions for setting up Kubernetes cluster on major cloud providers, as well as on Raspberry Pi by the end of the book.

Through the book you'll use demo application to easily learn about all possibilities of Kubernetes. By the end of the book you'll also learn how to set up real-world applications such as MySQL, MongoDB, Redis... You can find all examples in the publicly available GitHub repo, so you can easily test and change them.

Book is written with focus on Kubernetes 1.7 and maybe some examples require slight changes to get them work on newer versions.

I didn't like that some things are not covered, such as authorization, RBAC, ClusterRoles... Overall, I give 5 stars to this book because it's really well done and explains all important concepts so every reader can

understand.

Maurício Linhares says

Straightforward introduction to Kubernetes, covers most of the basics (and is mostly cloud-provider agnostic, did it all on GCP and it was all good) and goes all the way to setting up a stateful application. Includes examples of how to use config maps, services, pods, replica sets, daemon sets and stateful sets, lots of stuff to take on.

Some examples have typos or need updating to the latest version (I did this in a 1.7 cluster on GCP) but it's nothing that drives down the value. Also, if on GCP you don't need to setup anything for dynamic (or manual) volume creation, it will do it all for you, pretty good to get started and playing around. Don't forget to delete your servers once you're done, tho.
