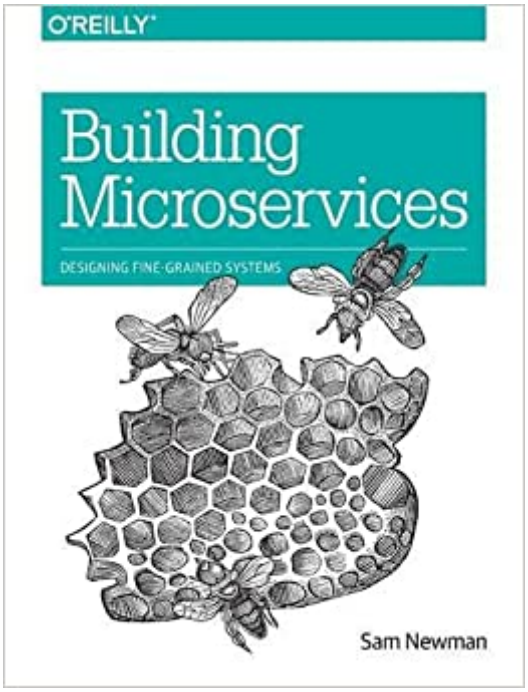
Building Microservices: Designing Fine-Grained Systems



Synopsis

Distributed systems have become more fine-grained in the past 10 years, shifting from code-heavy monolithic applications to smaller, self-contained microservices. But developing these systems brings its own set of headaches. With lots of examples and practical advice, this book takes a holistic view of the topics that system architects and administrators must consider when building, managing, and evolving microservice architectures.Microservice technologies are moving quickly. Author Sam Newman provides you with a firm grounding in the concepts while diving into current solutions for modeling, integrating, testing, deploying, and monitoring your own autonomous services. YouÃ¢â ¬â„¢ll follow a fictional company throughout the book to learn how building a microservice architecture affects a single domain.Discover how microservices allow you to align your system design with your organizationÃ¢â ¬â„¢s goalsLearn options for integrating a service with the rest of your systemTake an incremental approach when splitting monolithic codebasesDeploy individual microservices through continuous integrationExamine the complexities of testing and monitoring distributed servicesManage security with user-to-service and service-to-service modelsUnderstand the challenges of scaling microservice architectures

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Customer Reviews

View larger What Are Microservices? Microservices are small, autonomous services that work together. LetÃƒÂ¢Ã â ¬Ã â„¢s break that definition down a bit and consider the characteristics that make microservices different. The benefits of microservices are many and varied. Many of these

benefits can be laid at the door of any distributed system. Microservices, however, tend to achieve these benefits to a greater degree primarily due to how far they take the concepts behind distributed systems and service-oriented architecture. Key benefits include: Technology Heterogeneity Resilience Scaling Ease of Deployment Organizational Alignment Composability Optimizing for Replaceability.

Sam Newman is a technologist at ThoughtWorks, where he currently splits his time between encouraging and sharing Innovation globally and helping design and build their internal systems. He has worked with a variety of companies in multiple domains around the world, often with one foot in the developer world, and another in the IT operations space. If you asked him what he does, heÃ¢â ¬â„¢d say Ã¢â ¬Ëœ I work with people to build better software systemsÃ¢â ¬â„¢. He has written articles, presented at conferences, and sporadically commits to open source projects. He is currently writing a book, Building Microservices, which should be available in the Autumn of this year from O'Reilly.

My context: I helped build a system with a Rails "middle end" that talked to about eight microservices, and then moved that from Heroku to AWS. So I'm not a novice, but I still have a lot to learn. This book is nicely targeted at people like me. In fact, throughout I was thinking "I'll use this as a checklist next time I'm building a system" and then I was pleased to discover that the final, summary chapter is essentially that checklist.My only negative comments are these:* The writing up until chapter 4 seemed somewhat dry, then picked up its pace and became more conversational. However, the earlier chapters' topics are important (and used throughout the book), so don't skip them.* There's some jargon in the text that's unexplained. Most of it I already knew or could puzzle out, but I'm still curious what a "full-fat virtual machine" is. A glossary would have been nice.* There are a good number of useful references (with and without URLs) that I hope to check out someday. That would be easier if there were a comprehensive list of references at the end.Note: I'm not a fan of code- or diagram-heavy technical books on reading devices, but if I were doing it again, I'd buy the kindle version.

One of the most amazing books I've read.Buy it only if you are already experienced developer/architect who wants to see the whole picture.Don't buy it if you think this book (or any book) will teach you how to properly implement microservices. As the author points out, there is no right way, it depends on your functional and non-functional requirements.The author highlights

practices used by the greatest tech products such as AWS, Netflix, Gilt, other.Many tools are mentioned with examples where to use them.I love that it covers on tech aspects as well, such as evolving architect and Conway’s law.The writing style is very decent and examples are generic enough to be applicable in many cases and specific enough to highlight the point.

As someone who is still starting out on building systems based in microservices I was looking for a book that could tell me about common practices and flaws and I found that and more, learning about concepts I still had no idea were present in the world of microservices.The author manages to present the subject focusing on concepts rather than technologies. He does mention many technologies (and I’m glad he does) but always after explaining the concept and why it is good/bad (good is circumstantial).I don’t consider this to be highly technical book, more of an eye opener on the subject of microservices. It is a very please read and I consider it to be well organised.Even tho I read it from front to cover one can always use it as a reference book for different subjects due to it’s organisation.

The author went for the breadth vs depth and reading the book it clearly shows. A myriad of topics mentioned but not covered in any kind of detail. Perhaps you could use this book as a jumping off point but I doubt it would work for that either. The book does not have any substance behind it and I don’t see how this could be useful for the beginner nor an experienced software developer. Still giving it three stars as the style is clear and easy to read and it does try to enumerate all the appropriate topics that are involved when it comes to building the microservices. I just wish it covered them a bit deeper.

This book really is the perfect balance between laying out just the groundwork for understanding micro services and giving great examples and references on how to actually implement some of the concepts. If you’re a junior engineer or an architect, this is a must read!

Very good book. It’s not just about microservices, it gives a nice overview of where the computer science is today and what challenges it has along with ideas on how to solve those challenges. It doesn’t talk about algorithms or programming languages that much, but everything from distributed systems to security to deployment, testing, logging, monitoring - you name it - is there. I read it with Wikipedia always open. The sheer number of technologies and concepts it discusses is a bit overwhelming, but gives a very good perspective overall.

Read it before getting into cloud world. A few years later , it’s an even better read after having gained some experience. In fact still relevant despite the rapid new services that makes cloud even simpler.

nowadays everybody is talking about microservices and a lot of people don’t understand the word. most don’t know the difference between microservices vs monolithic services - which means they don’t understand the power in the use of microservices. this is just my experience with devs, especially devs from the .NET/Microsoft world. anyway, this book is a great, understandable reference to get those still unclear about microservices over the hurdle of understanding the differences between monolithic services and microservices and how you can leverage microservices to easily scale large applications fairly easily.

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