**Day One:**

**Contrail DPDK vRouter**

TAGLINE

Software Defined, Performant, Feature rich, Open Virtual Router

By Kiran K N, Ping Song, Przemyslaw Grygiel, Laurent Antoine Durand

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# Welcome to Day One

This book is part of the *Day One l*ibrary, produced and published by Juniper Networks Books. *Day One* books cover the Junos OS and Juniper Networks network administration with straightforward explanations, step-by-step instructions, and practical examples that are easy to follow. You can obtain the books from various sources:

* Download a free PDF edition at http://www.juniper.net/dayone
* PDF books are available on the Juniper app: Junos Genius
* Ebooks are available at the Apple iBooks Store
* Purchase the paper edition at Vervante Corporation (www.vervante.com) for between $15-$40, depending on page length

# Key DPDK Resources

This book is not a substitute for the excellent Contrail DPDK documentation that exists in the Juniper TechLibrary. The authors of this book assume you are familiar with Contrail documentation.

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| --- | --- |
| What is the Doc? | What is the URL? |
| Tungsten Fabric Architecture | https://tungstenfabric.github.io/website/Tungsten-Fabric-Architecture.html |
| Contrail day one book: UNDERSTANDING  OPENCONTRAIL ARCHITECTURE | https://www.juniper.net/documentation/en\_US/day-one-books/OpenContrailBook.pdf |
|  |  |

What You Need to Know Before Reading This Book

* You need a basic understanding of IP networking.
* You need a basic understanding of Linux
* This book assumes that you know some basic background about SDN and contrail architecture.
* You will need to have 2 or more Intel Xeon servers with Linux OS and DPDK-compatible NIC cards (For example Intel x710, Intel 82599)

After Reading This Book…

* You will learn the SDN basics
* You will learn DPDK and network virtualization technologies
* You will learn Contrail vRouter DPDK internal architectures.
* You will learn packet forwarding flows in DPDK vRouter.
* You will learn utilities available for DPDK vRouter troubleshooting and analyze DPDK performance

How This Book Is Set Up

This book is organized in seven chapters and an Appendix.

Chapter 1 introduces SDN overview.

Chapter 2 introduces virtualization concepts

Chapter 3 introduces DPDK vRouter architecture in details

Chapter 4 introduces DPDK vRouter fine tuning.

Chapter 5 introduces contrail and testing tool installations

Chapter 6 introduces DPDK vRouter tools and some lab studies

**NOTE** This book replaces the term “slave” with the terms “client”.