



Tools & Concepts for Cloud Deployments

Christopher B. Hauser
Institute of Information Resource
Management, Ulm University

Course Overview
Summer Semester 2019

Overview

In this practical hands-on you will learn how to work with Cloud computing from Infrastructure as a Service towards Platform as a Service.

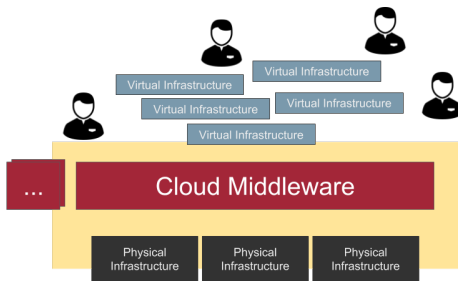


Figure: Cloud Middleware

Prerequisites

- ❖ You should be familiar with Linux and Bash, and have a basic understanding of networking with Linux
- ❖ The course assumes that you have access to an OpenStack cloud.

Before we take off . . .

The overall course consists of a set of **exercises** (see overview below). Each Exercise contains at least one **lesson**, which itself has steps like **Task** (practical hands-on), **Research** (look up information), or **Question** (validate yourself). Exercises build on top of each other - meaning, to make use of these exercises, stay on track. Let's go!

Before we take off ... (2)

- ✦ The exercises are available as PDFs or as Markdown at Github:
`https://github.com/cha87de/clouds-exercises`
- ✦ The `README.md` is the Markdown entrypoint for each exercise. The suggested solution is located in `solution.md`.

Exercises Overview

- ❖ Exercise 1: OpenStack basics
- ❖ Exercise 2: Monitoring and Vertical Scaling
- ❖ Exercise 3: Horizontal scaling and load balancing
- ❖ Exercise 4: Automating Cloud Deployments
- ❖ Exercise 5: Container Basics
- ❖ Exercise 6: Container Orchestration

Orientation & Exercise Topics

The Exercises walk from “Cloud Middleware” up towards Containers and Platform as a Service.

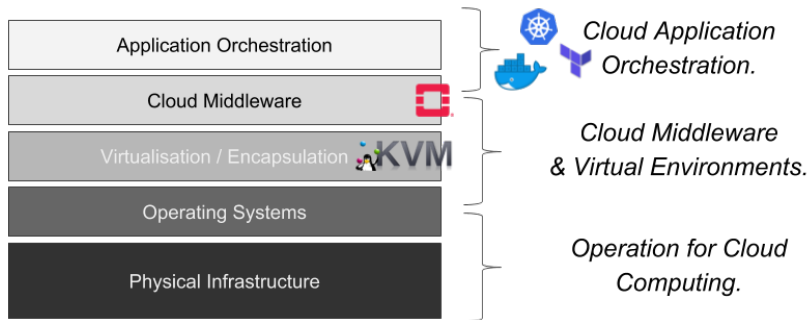


Figure: Cloud Layers

Comments, Questions, Anything?

... if not, let's get started with exercise 1! :-)

Direct further questions to

`christopher.hauser@uni-ulm.de`