



# Tools & Concepts for Cloud Deployments

## Exercise 3: Scaling and Load Balancing SummerSchool 2019, Curitiba

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# Overview

While vertical scaling is limited to a single instance and hence limited to the largest available flavor, this exercise introduces horizontal scalability.

- ❖ OpenStack provides virtual machines, security groups for firewalls, virtual networks and virtual routers.
- ❖ Wikimedia is a two-tier application with a presentation/logic tier and a data tier
- ❖ Horizontal scaling needs a load balancer as central point for user access. The data tier must not be part of the scaled presentation/logic tier.

# Lessons

1. Extend your knowledge about OpenStack: IaaS Networking
2. Multi-tier applications in Cloud Computing
3. Horizontal Scaling and Load Balancing

Exercise as PDF

# Exercise Solution

- ❑ Solution as Markdown
- ❑ Solution as PDF