



Contribution ID: 133  
slides)

Type: **Lightning Talk** (short presentation on 2nd day, max. 5 minutes, max. 2

## A Resource-aware Scheduling Concept for an OpenStack-based VDI

*Thursday, September 26, 2024 10:10 AM (5 minutes)*

Using Virtual Machines (VMs) with dedicated rendering and remote access capabilities, virtual workplaces can be created. If this is to happen on a large scale in the cloud, so-called Virtual Desktop Infrastructures (VDIs) become important for the dynamic provision of virtual desktops. A sustainable VDI should be scalable and should support desktop use cases with different resource requirements. Some use cases involve hundreds of similar VMs running in parallel, which requires proper resource planning ahead. A timed long-term resource scheduling of VM placements on compute nodes is a major challenge. Further requirements arise from long-term reservations, capabilities of the compute nodes and guest OS, and remote access. Summarizing the state-of-the-art and outlining use cases for a VDI on OpenStack, this paper discusses the considerations and steps to extend OpenStack services and develop scheduling components to operate an Open Source VDI for various use cases in the academic field.

**Authors:** VON SUCHODOLETZ, Dirk (University of Freiburg, Germany); BENTELE, Manuel (University of Freiburg, Germany); MESSNER, Manuel (University of Freiburg, Germany); PILISZEK, Radosław (7bulls.com, Warsaw, Poland)

**Presenter:** BENTELE, Manuel (University of Freiburg, Germany)

**Session Classification:** Lightning Talks

**Track Classification:** Contribution presents methods and workflows related to computation or data management