

Docker Containers and Their Emerging Roles in Distributed Applications

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Docker has stormed into the IT landscape recently as a new abstraction for linux containers. Its ease of use is set to revolutionize the way we package applications, share and deploy them on compute clusters. In this presentation we will discuss Docker principles, illustrate the new application life cycle that Docker offers and give an overview of the booming Docker ecosystem. We will then introduce several container management tools aimed at supporting Docker based applications in clusters. Specifically we will present Kubernetes and show how Mesos is playing its part. With this new IT landscape emerging, we will present some ideas on how these new technologies might impact LHC experiments and their applications.

About the author.

Sebastien Goasguen built his first compute cluster in the late 90's when they were still called Beowulf clusters while working on his PhD; he has been working on making computing a utility since then. He has done research in grid computing and high performance computing and with the advent of virtualization moved to cloud computing in the mid 2000s. While at Purdue and Clemson he was involved in the OSG and TeraGrid project and worked on CERN LXCLoud as a scientific associate in 2009 and 2010. He is currently a Senior Open Source Solutions Architect at Citrix, where he works primarily on the Apache CloudStack project, helping develop the CloudStack ecosystem. Sebastien is a project management committee member (PMC) of CloudStack and Apache libcloud and a member of the Apache Software Foundation, he focuses on the cloud ecosystem and has contributed to Knife-cloudstack, Eutester and Ansible. He is the author of O'Reilly 60 recipes for CloudStack and is currently writing the O'Reilly Docker cookbook.

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