UberCloud delivers scalable HPC in the Cloud end-user deployments with OpenHPC containers

SUNNYVALE, Calif., April 1, 2016 – Today UberCloud announced that it has developed quick-to-roll-out and easy-to-use containers based on OpenHPC for use in High Performance Computing (HPC), whether they be on-premise, or in the public or a private cloud. Using popular Linux Container technology, UberCloud containers resolve the deployment challenges of traditional HPC environments with the goal to make HPC ubiquitous and widely available. UberCloud uses OpenHPC to develop pre-configured, ready-to-run software containers to ease usability, accessibility, and portability challenges for development and execution of HPC applications in public and private cloud environments. UberCloud OpenHPC containers are one elegant way to deliver software packages effectively and efficiently into the cloud, and execute them in a single-tenant environment.

OpenHPC is a collaborative, community effort under the Linux Foundation that initiated from a desire to aggregate a number of common ingredients required to deploy and manage High Performance Computing (HPC) Linux clusters including provisioning tools, resource management, I/O clients, development tools, and a variety of scientific libraries. Packages provided by OpenHPC have been pre-built with HPC integration in mind with a goal to provide re-usable building blocks for the HPC community.

“Linux containers were designed for repeatable, rapid distribution of ready to run, tested software,” said Burak Yenier, co-founder and CEO of UberCloud. “Our OpenHPC containers are further enhanced to address deployment challenges of HPC environments. They are prebuilt with just the right components, such as MPI libraries, resource management tools, compilers, and drivers for high performance computing as well as the desired software applications, e.g. Computational Fluid Dynamics or other end-user applications. OpenHPC containers reduce HPC environment deployment times from days to hours, minimizing administrative costs, and increasing repeatability.”

Main beneficiaries in the HPC realm, when used in single tenant run-time environments are cloud solution providers (CSPs), ISVs, HPC developers, CSP-marketplaces, and end-users. Key benefits of OpenHPC based containers are:

- **Portability**: Build container images once, deploy them rapidly in various infrastructures
- **Low Overhead**: Run at performance levels comparable to bare-metal deployments
- **Scalability**: Deploy containers on multiple hosts to increase performance
- **Consistency**: Deploy identical containers across various infrastructure domains
- **Rapid Deployment**: Simplify and compress deployment time of HPC applications

UberCloud OpenHPC based containers can be managed by traditional cluster management tools and take full advantage of high performance computing architectures. Read more about

About UberCloud

UberCloud develops technology for engineers and scientists and their service providers to discover, try, and buy high performance technical computing as a service, in the cloud. Founded in 2012, UberCloud performed 190 engineering cloud experiments so far to better understand and resolve cloud computing challenges. UberCloud Container technology based on open-source Docker and developed for complex engineering and scientific applications enables ease of access to and use of any computing environment, for any user and any provider.