This document is a draft proposal for an inaugural scientific working group at the OpenStack Summit in Austin (Texas, USA) in April 2016.

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Abstract:

The inaugural meeting of the Scientific Working Group will be a catalyst [1] for bringing Universities, Labs, Industrial R&D, Academics, Researchers and Scientists together to discuss the uses of OpenStack in our institutions and on our campuses.

Outputs from this working group will be updated on the following OpenStack website:

https://wiki.openstack.org/wiki/scientific-wg

Keywords: #scientific-wg #academia #research #laboratories #R&D #science #compatibility

[1] = "catalyst" - or rather, to be more specific: "antihemorrhagic"

Problem / use case being addressed:

Aim: to explore opportunities for cross-institutional collaboration and compatibility around use of OpenStack for use by researchers, scientists, academics and developers.

As a newly formed working group, the "scientific-wg" is currently taking user nominations via the following Etherpad (please do add your own name if your institutions is not already represented):

https://etherpad.openstack.org/p/scientific-wg

In this session participants will learn:

The agenda for the first #scientific-wg will include breakout groups to discuss the following broad-topics:

- **HPC/HTC infrastructure**, i.e., enabling researchers to have "on tap" compute resources for research experiments in parallel, simulation and high throughput workloads.
- **Application infrastructure**, i.e., ease of working collaboratively with fellow researchers, scientists and lab colleagues, such as conducting cloud native data analysis experiments (via RStudio, iPython, MATLAB, GIPSY, etc.)
- **Social infrastructure**, i.e., communities emerging on campuses which are promoting use of cloud computing for collaborative research and science, such as data science,
- **Data infrastructure**, i.e., large data science experiments and their usability via cloud applications such as, for example, data from radio astronomy, genomic sequencers, medical imaging-omics, informatics, etc.
- *Last but not least*, promoting the amazing things which researchers, scientists and developers are doing with OpenStack.

During this session, the breakout groups will look to discuss and suggest collaborations, specifying actionable ideas which will be taken forward via the the user committee openstack mailing list:

user-committee@lists.openstack.org

NB: In naming this working group “Scientific” OpenStack, we are “tipping our hat” to the highly regarded “Scientific Linux” developers and community. Moreover please note, there is no stated intention here to provide a base distro for a “Scientific OpenStack” or to limit the working group to only Scientific Linux as the base operating system. However, it is recognized that Scientific Linux has been, and continues to be in its new form, a major contributor to the affordability and accessibility of modern-day HPC infrastructure that has led to world-class science and ground-breaking industrial R&D. Whether, the case can be similarly made for a “Scientific OpenStack” is undoubtedly worthy of discussion.
