UTSA Cloud and BigData Laboratory launches one of the largest open clouds in academia

May 7 2014

The University of Texas at San Antonio announced today that the Cloud and BigData Laboratory in the UTSA College of Sciences is launching one of the largest Open Clouds in academia with initial 6,600 CORES utilizing OpenStack software, co-founded by Rackspace and Open Compute hardware, founded by Facebook, to support advanced computing and big-data analytics research. Credit: Patrick Dunn

The University of Texas at San Antonio announced today that the Cloud and BigData Laboratory in the UTSA College of Sciences is launching

one of the largest Open Clouds in academia with initial 6600 COREs utilizing OpenStack software, co-founded by Rackspace, and Open Compute hardware, founded by Facebook, to support advanced computing and big data analytics research.

The UTSA Cloud and BigData Laboratory, with more than 20 doctoral students, is devoted to the research of new technologies and innovations in various areas of computing such as OpenStack integrated with a Low Latency Interconnect and High Performance Cloud, Cyber Security, Hybrid and Federated Cloud, ZeroVM and BigData Analytics. The laboratory was built in collaboration with industry partners such as Rackspace, Open Compute Project Communities, Mellanox, Internet2 and many others.

"We believe Open Compute, OpenStack and Software Defined Data Center are going to be the next computing platforms to support all of the emerging cloud and big data technologies," said C. Mauli Agrawal, UTSA vice president for research. "These partnerships with OpenStack, ZeroVM and Open Compute communities will create research and educational leadership opportunities for UTSA, San Antonio and across Texas."

The primary goals for the laboratory include:

- Building infrastructure research in collaboration with industry partners and Open communities
- Enabling engineering and scientific research on Open Cloud with bursting to public clouds
- Training a pipeline of students to be prepared for the future demands of the workforce

"I want to congratulate UTSA on their hard work in making the Cloud and Big Data lab a reality. Combining the intellectual and technological

resources of UTSA, the Open Compute Project and Rackspace's expertise in running open technologies, the collaboration will help further position San Antonio as a technology hub and a leader in solving some of the most complex computing challenges in an open and transparent way," said John Engates, CTO of Rackspace. "By embracing open technologies such as OpenStack and Open Compute, schools like UTSA give their students an advantage in the tech world. I know the students, the city and the world will receive the benefits of this major achievement."

The UTSA laboratory researchers are building the cloud using a multiple cell concept. Each cell consists of compute, storage and network nodes that are built using the Open Compute hardware, and OpenStack software with bursting capability to public clouds. Theoretically, the Open Compute hardware and the OpenStack software would both allow for flexibility in adapting the systems to changing engineering and scientific application requirements.

"We are partnering with industry leaders to expand our academic and research focus to include the cutting-edge technologies and the problems that are significant to industry," said George Perry, dean of the UTSA College of Sciences. "We want to continue to foster adoption of open technologies and make it easier to deploy open standard-based big data and cloud solutions."

Provided by University of Texas at San Antonio

Citation: UTSA Cloud and BigData Laboratory launches one of the largest open clouds in academia (2014, May 7) retrieved 15 May 2024 from https://phys.org/news/2014-05-utsa-cloud-bigdata-laboratory-largest.html