COLLEGE PARK, Md., Sept. 18, 2013 /PRNewswire-iReach/ -- Mid-Atlantic Crossroads (MAX) was recently awarded more than $900,000 as the result of two separate grant proposals, which were submitted to the National Science Foundation (NSF) and the Global Environment for Network Innovations (GENI) Project Office respectively. Both awards will take effect on
October 1, 2013
, and the funds will be allocated over the next two years. The awards will enable growth of MAX's research and high-performance networking infrastructure, which facilitates big science in the research community.

The first grant, funded by NSF and titled "CC-NIE Integration: High-Performance Computing with Data and Networking Acceleration (HPCDNA)," is being led by Principal Investigators (PIs)
Tripti Sinha
,
Tom Lehman
, and
Xi Yang
from MAX and Saurabh Channan from the Global Land Cover Facility (GLCF) and
Paul Torrens
from the Geosimulation Research Laboratory, both at the
University of Maryland
. The proposal focuses on the development of technologies to integrate network-embedded storage systems with High-Performance Computation (HPC) facilities and cloud environments.

Currently, researchers use application-specific data that is often only accessible from one or a few compute environments, thus limiting the ability to optimally match research problems to computational capabilities. HPCDNA will develop technologies to enable scientists to flexibly and seamlessly utilize common data sets across a diverse set of computational resources, allowing researchers to conduct studies with more ambitious goals.

The GENI Project Office funded the second grant, titled "GENI Stitching and Computation Enhancements (GENIStitch)," which was awarded to MAX in an effort led by PIs Tom Lehman and Xi Yang. The grant provides support for continued involvement in the GENI project, a national endeavor to create a virtual laboratory for at-scale networking experimentation.

GENIStitch will allow the development of technologies to "stitch" together distributed GENI resources, thus enabling researchers to interconnect at the various network layers as needed for complex research and experimentation objectives. This is a critical requirement for researchers investigating next-generation Internet technologies, such as software defined networking.

For more information about the grants awarded to MAX, please visit www.maxgigapop.net/metro-network-research/projects/
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About the Mid-Atlantic Crossroads (MAX) The Mid-Atlantic Crossroads (MAX) is a multi-state GigaPoP led by the University of Maryland. MAX owns and operates an all-optical, Layer 1 core network that is the foundation for a high-performance infrastructure providing state-of-the-art network technology and services. MAX participants include universities, federal research labs, and other research-focused organizations in the Washington and Baltimore metropolitan areas. MAX serves as a connector and traffic aggregator to the Internet2 national backbone and peers with other major networks. Its mission is to provide cutting-edge network connectivity for its participants, tailored and generic data-transport solutions, and advanced services to accommodate and optimize large data flows, and to facilitate network and application research.

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