



**NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314**

NSF 18-014

Dear Colleague Letter: Encouraging Participation of Cloud Computing Providers in Computer and Information Science and Engineering Research

October 11, 2017

Dear Colleagues:

With this Dear Colleague Letter (DCL), the National Science Foundation's (NSF) Directorate for Computer and Information Science and Engineering (CISE) is announcing its intention to (1) enhance the CISE research and education community's access to cloud computing resources in order to advance discovery and innovation in the field, and (2) encourage participation by all cloud providers in this effort.

In the past year, NSF expanded its [Critical Techniques, Technologies and Methodologies for Advancing Foundations and Applications of Big Data Sciences and Engineering \(BIGDATA\)](#) program to include the participation of Amazon Web Services, Google Cloud, and Microsoft Azure. These cloud providers collectively contributed up to \$9 million in the form of cloud credits/resources for projects funded through the BIGDATA program beginning in Fiscal Year (FY) 2017.

Through this public-private partnership, NSF's CISE Directorate sought to provide researchers access to cutting-edge, scalable platforms for developing new methods and solutions for today's most pressing data challenges. In doing so, CISE also sought to capitalize on the cloud providers' proven track records in state-of-the-art, on-demand, cloud computing. This partnership builds on the shared interests of CISE and the cloud providers in accelerating progress in research and innovation in big data and data science broadly.

NSF's CISE Directorate aims to leverage the success of this partnership by not only expanding it to other CISE programs beyond BIGDATA, but also by considering additional, new forms of NSF-enabled partnerships among cloud providers and the research community. CISE encourages participation by all cloud providers in this endeavor. The benefits of a partnership with cloud providers include (1) access by the CISE research and education community to a range of useful resources and services — from scalable storage to real-time analytics to streaming data services to state-of-the-art compute nodes; and (2) the ability to experiment with real datasets where scale and performance are key considerations and the significant storage, compute, and networking resources offered by the cloud providers are key enabling factors.

With this DCL, NSF's CISE Directorate announces that participation shall be open to all providers with the capacity to offer the academic computer and information science and engineering research and education community access to cloud computing resources and services. Organizations interested in learning more about this evolving public-private partnership are encouraged to contact Chaitan Baru at cbaru@nsf.gov and Meghan Houghton at mehought@nsf.gov by January 15, 2018.

The use of cloud computing across a diversity of computer and information science and engineering areas will catalyze new modes of data-driven discovery and innovation, thereby accelerating progress in research and education and driving continued economic growth for the U.S.

Sincerely,

James Kurose
Assistant Director
Directorate for Computer and Information Science and Engineering (CISE)