



National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230

NSF 13-121

Dear Colleague Letter - US Ignite: Seeking Next-Generation Public Sector Applications for Ultra-Fast, Programmable Networks

Date: August 16, 2013

The National Science Foundation (NSF) is announcing its intentions to build upon the success of previous US Ignite awards and accept additional EAGER proposals or requests for supplemental funding that extend existing CISE projects to include demonstrations with direct relevance to the US Ignite initiative. Such submissions must be consistent with the guidance given in this letter and in the NSF Proposal and Award Policies Guide (PAPPG; see <http://www.nsf.gov/pubs/policydocs/pappguide/nsf13001/index.jsp>).

NSF is currently emphasizing the development of public sector gigabit applications in areas of national priority: advanced manufacturing, clean energy and transportation, cyber learning, health IT, and public safety/emergency preparedness. The expectation is that applications supported under this DCL would showcase new, near-term (within two years) possibilities for gigabit networks in support of these priority areas. Projects supported under this DCL should be able to demonstrate, and perform early evaluations of, the application value in the context of an anchor institution, campus, or city.

In June 2012, the Office of Science and Technology Policy (OSTP) and NSF, in partnership with other Federal agencies, announced US Ignite, an initiative seeking to promote U.S. leadership in the development and deployment of next-generation gigabit applications with the potential for significant societal impact. With US Ignite, NSF is leveraging its investments in the Global Environment for Network Innovations (GENI) by integrating academic campuses that have GENI technology with research backbone networks and numerous broadband cities and towns across the nation. While GENI will continue to provide a national research and education resource for networking scientists and engineers for years to come, NSF is extending its usefulness through US Ignite by encouraging the research community to develop novel applications that take advantage of ultra-fast, programmable networks and offer potential for public benefit.

The primary goal of US Ignite is to break a fundamental deadlock: there is insufficient investment in gigabit applications that can take advantage of advanced network infrastructure because such infrastructure is rare and dispersed. And conversely, there is a lack of broad availability of advanced broadband infrastructure for open experimentation and innovation because there are few advanced applications and services to justify it. US Ignite is breaking this deadlock by providing incentives for imagining, prototyping, and developing public sector gigabit applications, and by leveraging and extending this network testbed across U.S. campuses and cities.

Over the last year, several NSF projects funded under a previous version of this DCL (see NSF 12-085; http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf12085) have yielded novel ideas and applications in a variety of sectors, demonstrating the potential societal impact of ultra-fast, software-defined networks.

Prior to submitting an EAGER proposal or supplemental funding request under this DCL, a two-page

summary must be emailed to usignite@nsf.gov. The summary should identify: 1) the area(s) of national priority that the application will impact; 2) the scientific and engineering motivation for the proposed effort; 3) the novelty and benefits within a national priority area that might accrue if the application or service were to be deployed; 4) the members of the team that will work together to show results at some level of scale and within the scope of some set of anchor institutions, campuses and/or cities; and 5) the process by which the results will be demonstrated and evaluated. If human subjects will be part of the experimentation plan, the e-mailed summary must indicate awareness of NSF's human subjects policies. EAGER proposals or supplemental funding requests for US Ignite that do not contain the required predated email summary and a response from the NSF US Ignite program team will be returned without review.

Please note that this US Ignite activity is not a proper venue for proposals for which there are existing programs or mechanisms. In particular, projects that are sufficiently aligned with other NSF programs so as to receive an appropriate external review would not be appropriate for this program.

Questions should be directed to usignite@nsf.gov.

Sincerely,

Farnam Jahanian
Assistant Director
Directorate for Computer and Information Science and Engineering