News Release

Defense Advanced Research Projects Agency

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DARPA Releases neXt Generation (XG) Communications Requests for Comment

The Defense Advanced Research Projects Agency (DARPA) released the first neXt Generation (XG) Communications program Request for Comment (RFC) documents on June 16.

The RFCs are the first in a series of technical descriptions for key aspects of the XG technology. DARPA is making these documents available for community input to ensure that XG technology is widely applicable, and so that common principles in terms of policy representation and spectrum user interaction can be developed. The release of these documents is the first step in establishing methods for enabling shared spectrum usage.

The program has posted two RFCs, the XG Vision RFC and the XG Architectural Framework RFC. The Vision RFC provides a description of the program's overarching view of adaptive spectrum communications, while the Architecture RFC outlines the main features of XG protocols, interfaces and spectrum access policies. These two RFCs will be accompanied by three more in the coming months that will provide more detailed descriptions of the policy description language, protocols, access methods, and interfaces outlined in the Architecture RFC. The use of the RFC process harkens back to DARPA's original development of the Internet, which was performed through a series of public RFCs that enabled a wide community to participate in the technical development of the Internet. These original DARPA RFCs still form the technical basis of the Internet.

"This is the beginning of our outreach to the wider community that has expressed great interest in XG. We have presented overviews of the technology at industry and Government meetings, but this is the first time we have been able to provide our vision of the actual technology. We particularly look forward to receiving input from the diverse commercial community," noted Preston Marshall, DARPA's XG Communications program manager.

DARPA's XG Communications program is developing technology to allow multiple users to share use of the spectrum through adaptive mechanisms that deconflict users in terms of time, frequency, code, and other signal characteristics. DARPA's goals are to enable an increase of a factor of 10 in the usage of typical spectrum. The DARPA program will develop technology that is applicable to not only the military, but could be applied for civil use as well.

The RFCs are available via the Web at http://www.darpa.mil/ato/programs/XG/rfcs.htm. Comments regarding the RFCs should be sent to ramanath@bbn.com.

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Media with questions on the XG Communications program, please contact Jan Walker, (703) 696-2404, or jwalker@darpa.mil. Contractors or military organizations should contact Preston Marshall, (703) 696-5273. RFC comments should be directed to ramanath@bbn.com.