Increased TransPAC Capacity Allows Greater International Collaboration

In February, Indiana University announced vastly increased capacity for TransPAC, the high-speed international Internet service connecting research and education networks in the Asia Pacific to those in the United States. This will make a vital contribution to continuing and expanding international collaboration between scientists and researchers from both areas in digitally enabled science—widely called e-science.

"Science and research are becoming progressively more international and digitally based with worldwide e-science communities evolving around disciplines that integrate computation, data, instruments and arrays of sensors. Global high-speed networks are the critical foundations on which e-science is based," says Michael McRobbie, IU vice president for information technology and chief information officer, who also is principal investigator for the United States in TransPAC. "It will provide a very significant enhancement of the global digital infrastructure that underpins e-science collaboration between the United States and the Asia Pacific." TransPAC connects research and education networks in the Asia Pacific associated with the Asia Pacific Advanced Network (APAN) to the Internet2 Abilene network, the vBNS, and other global networks. TransPAC will increase bandwidth available for researchers from 155Mbps (megabits per second) to 1.244Gbps (gigabits per second). International circuits for TransPAC are provided by Teleglobe and Kokusai Denshin Denwa, Co. Ltd. (KDDI).

Operational support for TransPAC is provided in the United States by IU’s Global Research Network Operations Center (Global NOC) and in Japan by the KDDI APAN NOC. "The value of the TransPAC network has just increased markedly, without further investment by the funding agencies," says Aubrey Bush, division director, National Science Foundation. "The partners are to be congratulated for making such an effective use of research funding."

"We are pleased that KDDI and Teleglobe are taking this opportunity to become leaders in promoting international high-bandwidth connections that support applications development among the R&E networks, and we are confident they will play a valuable role in the success of international e-science," McRobbie says.

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