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The NEA3R Collaboration: Expanding Support for Global Science

Building off of the success of the Networks for European, American, and African Research (NEAAR) project, the US National Science Foundation has recently provided funding for a follow-up project that will expand and enhance backbone network services and bandwidth connecting researchers in the US with their counterparts in Europe, Africa, and the Arctic. Led by the International Networks at Indiana University team, the NEA3R collaboration includes an extensive set of partners and collaborators. The primary European partners are GÉANT and NORDUnet. The primary African partner is the UbuntuNet Alliance, who will coordinate with ASREN and WACREN on project activities. The NEA3R collaboration will be complementary to European initiatives such as AfricaConnect3 and BELLA and will support community-driven enhancements in three different areas: 1. Physical: Expansion of US<->Europe connectivity from 100G to 200G 2. Logical: A network system of logical “Sister” circuits to ensure connectivity into partner regions, including circuits into Africa and the Arctic 3. Service: Continuing the current project theme of “More Than Just the Network,” the project will support services including performance monitoring, via NetSage, and science engagement that will help improve performance for research collaborations using the NEA3R infrastructure This talk will begin by providing an overview of the NEA3R project, highlighting changes and improvements to the NEAAR infrastructure. The talk will then focus on the services being provided, specifically on how the NEA3R project is using NetSage to better understand network usage and data transfer performance of international circuits. We will close the talk by highlighting practical science engagement use cases centered on US/West Africa science collaborations and show how network engineers, researchers, network planners, and CIOs can use NetSage to understand network usage and data transfer performance.

More information on NEA3R can be found at:
<https://internationalnetworks.iu.edu/projects/NEA3R/index.html>

More information on NetSage can be found at <https://www.netsage.global/>

Relevant NetSage portals can be found at:

- NSF International Circuits: <http://portal.netsage.global>
- Advanced North Atlantic collaboration: <http://ana.netsage.global>

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