# Trusted CI Success Story
TransPAC

Trusted CI guides TransPAC through NSF cybersecurity requirements

National Science Foundation (NSF) researchers are tackling big problems, and TransPAC is helping them fast-track their discoveries. Whether it's high-energy physics, bioinformatics, COVID-19, cancer, or exploration of the cosmos, TransPAC accelerates research by moving data faster around the world.

Funded for more than 20 years by the NSF, TransPAC is one of four grants currently awarded to International Networks at Indiana University. "TransPAC is a data transfer network for research and education. Our mission is to support NSF scientists around the world. We do end-to-end performance work to make sure researchers are getting what they expect from the network. We meet with them and recommend ways to accelerate data transfers. The quicker they get their research done, the faster they can cure cancer," said Hans Addleman, co-principal investigator (PI) for TransPAC.

With a 100-gigabit circuit from Seattle to Tokyo and two 10-gigabit circuits from Guam to Hong Kong, the trans-Pacific network carries data for almost every country in the world. "We are not a facility, but a transit hub. We secure our routers and switches with the help of GlobalNOC at Indiana University," said Addleman.
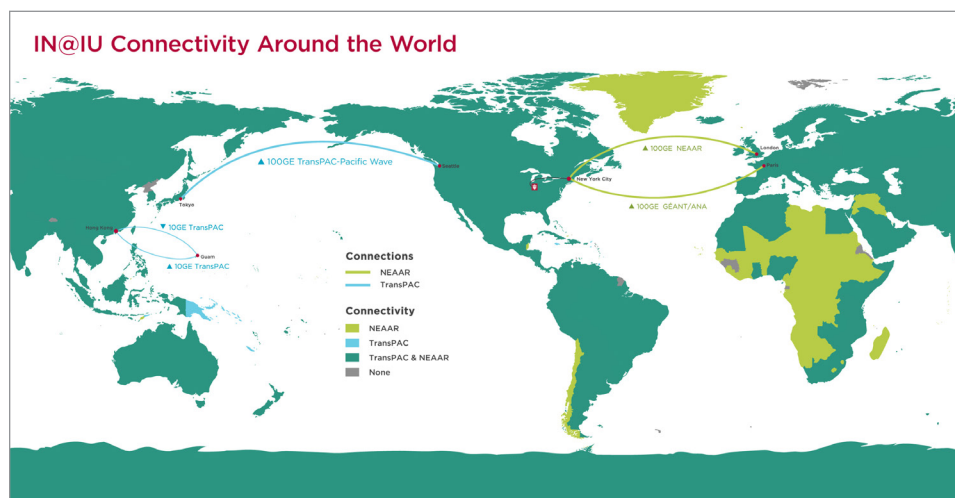
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In 2015, the NSF added a new requirement. Every award recipient was required to submit a cybersecurity plan, and that's when TransPAC asked Trusted CI, the NSF Cybersecurity Center of Excellence, to help them formulate a customized plan.

"One issue that came up was the need to split the role of PI and security engineer. Trusted CI identified the need for a security role that was separate from the project management and political aspects of the PI role. The two roles have a different viewpoint, and we needed a person who would advocate specifically on behalf of security issues," Addleman emphasized.

Trusted CI also recommended customized cybersecurity policies that applied to the way TransPAC works with its users, while steering the team away from policies they didn't need.

Trusted CI also encouraged TransPAC to take advantage of GlobalNOC's security benefits.

"We now have a working security framework for TransPAC and a full set of procedures we would follow in case of an incident. The biggest win was Trusted CI had exactly what we needed at exactly the right time. We were able to go back to the NSF two or three months later and say, 'Hey look, here's a full plan that we developed,' and our NSF officer was very happy about that," Addleman added.

In October 2020, the NSF awarded TransPAC a $4.75 million grant, extending more than 20 years of collaboration with the Asia-Pacific region and enabling TransPAC to continue its high-speed network and services for another five years. International Networks at IU will co-lead the TransPAC5 initiative.

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