FACT SHEET

Securing Our Nation's Cyberspace



The National Science Foundation (NSF) supports a wide range of cutting-edge interdisciplinary research and education activities aimed at building a cybersecure society and protecting our nation's vast computing infrastructure. Cybersecurity has become one of the most serious economic and national security threats to our nation. Corporations, agencies, national infrastructure, and individuals have all been victims of cyber-attacks. Securing our nation's cyberspace requires long-term investments across statistical, mathematical, economic, human, computational, and computer sciences and ultimately in the transition of new concepts and technologies into practice.



The Foundation's Secure and Trustworthy Cyberspace (SaTC) investment aims to provide the scientific basis for designing, building, and operating a cyberinfrastructure that can resist attacks and be tailored to meet a wide range of technical and policy requirements. The effort also encourages state-of-the-art research in the design of incentives that either reduce the likelihood of cyber attacks or the negative effects arising from them. This innovative research will improve the resilience of operating systems, software, hardware, and critical infrastructure while preserving privacy, promoting usability, and ensuring trustworthiness through foundational research and prototype deployments.

The Federal Cyber Service: Scholarship for Service (SFS) program will increase the number of qualified students entering the fields of information assurance and cybersecurity. The program will improve the capacity of the U.S. higher education enterprise to produce professionals with cybersecurity expertise. This program provides funding to colleges and universities for

scholarships and capacity building in the information assurance and computer security fields.

The development of cutting-edge technology and an educated cadre of information technology professionals in cybersecurity is paramount to ensure the protection of our nation's information technology infrastructure and for building a cybersecure society.

Credits: Falko Kuester, Univ. of California, San Diego (top left); Thinkstock (others)