Nation’s top cybersecurity program leaps forward with infrastructure investments to advance Government–University–Industry partnerships in the interest of national security
Leveraging Government-University-Industry Partnerships

Governmental agencies are calling for greater collaboration to address America’s national security infrastructure protection. To encourage this, business and local government partners will have direct access to the technical expertise, highly trained students, and specialized facilities that make UTSA a premier cybersecurity program.

The National Security Collaboration Center (NSCC) is the result of strong partnerships with both the public and private sectors.

Current federal cyber operations in San Antonio account for more than 7,000 military and civilian jobs.

UT San Antonio is partnering with the following:

- U.S. Army Research Laboratory
- National Security Agency (NSA) Texas
- 24th Air Force Cyber Command
- 25th Air Force
  (specializing in intelligence, surveillance and reconnaissance agency)
- Department of Homeland Security
- U.S. Secret Service
- Federal Bureau of Investigation

Both virtual resources and a physical location are vital for government, industry, and academic partners to collaborate, conduct leading research, and to rapidly develop and prototype state of the art technologies and solutions to face the ever-increasing level of threats to national security and global defense.

By partnering with the National Security Collaboration Center, companies will have a competitive advantage for attracting customers, talent, and funding to grow their businesses. With its convenient location, partners will have expedient access to UTSA faculty, research, and students and have the benefit of competitively priced land, lab, and office space leases.

The NSCC will be a 80,000 sq. ft./$33M facility supporting Government-University-Industry (GUI) partners. By providing office space, state-of-the-art research laboratories, and incubator capabilities, the NSCC will give GUI entities the ability to collaborate on scientific investigation and business enterprise.

This initiative is the next major step in UTSA’s path toward national recognition as a research-intensive university and serves our strategy to ensure UTSA’s competitive advantage and reputation as America’s premier cyber security program.
National Security and Defense Ecosystem in San Antonio and Texas

As the nation’s seventh largest city, second largest cyber hub, home to the largest concentration of cybersecurity experts and industry leaders outside Washington, D.C., with the right population density, capital investment, and entrepreneurial spirit, San Antonio is uniquely positioned to lead the nation in cyber research and workforce development.

Within the state of Texas, significant cyber-related resources have aligned along the I-35 corridor and throughout three of the largest cities in the country—San Antonio, Dallas, and America’s fastest growing city, Austin. Serving as economic drivers for private sector cyber and information technology industries, these cities are also home to a multitude of national security and defense operations and headquarters for the south and west regions of the U.S.

Texas must consider how it will leverage its resources to attract cybersecurity businesses and federal operations to claim a larger portion of the projected $156B global cybersecurity market (2019). As home to the largest footprint of federal and private-sector cyber capabilities, San Antonio’s NSCC could serve as regional hub to foster cyber industry growth in Texas.

Military/DoD Installations in Texas

**Dallas**
- Grand Prairie Armed Forces Reserve Complex
- Naval Air Station Joint Reserve Base

**El Paso**
- Fort Bliss
- White Sands Missile Range

**Austin**
- Fort Hood
- Camp Mabry

**San Antonio**
- Joint Base San Antonio
- Fort Sam Houston
- Lackland Air Force Base
- Kelly Field Annex/Port San Antonio

Defense and Intelligence Operations in San Antonio

- Army Research Laboratory (ARL)
- National Security Agency (NSA) Texas
- Federal Bureau of Investigation (FBI)
- Joint Task Force West
- Department of Homeland Security (DHS) - US Secret Service (USSS), Customs and Border Patrol (CBP), Immigration and Customs Enforcement (ICE)

The 24th AF (Cyber), 25th AF (ISR), NSA-Texas, San Antonio Military Medical Center (all DoD bio-medical), Aerospace Education, Training and Operations, US Army North and US Army South in San Antonio are of critical importance to military cyber operations.
Aligned to defense and national security assets throughout the state of Texas, institutions within the University of Texas (UT) System are providing significant contributions to the field of cybersecurity as it relates to our nation’s safety and security.

UT San Antonio’s program ranked **#1 cybersecurity undergraduate education in the United States in 2014** (Ponemon Institute for Hewlett Packard) and ranked **#2 graduate program in cybersecurity in 2016** (Universities.com).

UT San Antonio’s cybersecurity program has been designated as a National Center of Excellence in Information Assurance by the National Security Agency and the Department of Homeland Security.

With over 2,500 graduate and undergraduate students at UT San Antonio studying cyber and related fields, the program spans four colleges – including the Colleges of Business, Engineering, Liberal & Fine Arts, and Sciences. It also includes four nationally recognized research centers, the Center for Infrastructure Assurance and Security (CIAS), the Institute for Cyber Security (ICS), the Cyber Center for Security & Analytics, and the Open Cloud Institute (OCI). The colleges also offer cyber programs including aspects of national security in non-STEM fields such as ethics, behavior, policy, languages and culture. In fall 2017, UTSA began offering a fully online B.B.A. in Cyber Security.

UT San Antonio serves as home to the U.S. Army Research Laboratory (ARL) South, Cybersecurity Centroid. ARL’s UTSA office is tasked with coordinating cyber-science research at UTSA with its satellite locations at UT Arlington, UT Dallas, and UT El Paso, along with researchers at ARL’s Adelphi Laboratory Center and Aberdeen Proving Ground in Maryland. The Cyber Centroid has a senior on-site ARL Cyber Scientist to the UT system who coordinates activities with other San Antonio area Government agencies and cyber-related commercial enterprises.

Texas Cyber Corridor

The ARL South partners each have their own, unique specialties.

- **Cyber Centroid at UT San Antonio:**
  - cyber/physical systems
  - cyber analytics/visualization
  - machine learning

- **Satellite at UT Arlington and UT Dallas:**
  - human-centric cyber security
  - data analytics

- **Satellite at UT El Paso:**
  - analyst-centric data acquisition and analysis and cyber modeling

National Security Agency (NSA) in Texas has established four joint work statement’s related to Internet of Things, Innovation and Machine Learning on the UTSA campus in January 2018. Both NSA and ARL have formal Cooperative Research and Development Agreements with UTSA.
National Security Collaboration Center (NSCC)

UT San Antonio seeks to establish The National Security Collaboration Center (NSCC), which will focus on the following to improve national security and global defense:

- Cybersecurity & Cloud Computing
- Anti-Terrorism
- Election Security
- Cyber Attack/Deterrence & Policy
- Infectious Diseases & Biological Threats
- Military Health & Wellness
- Demographic Methods & Trends
- Governance & Policy
- Emergency Management & Communications
- Border & Refugee Issues
- Advanced Materials
- Nanotechnology
- Critical Infrastructure Protection
- Robotics & UAVs
- Analytics
- High Performance Computing
- Artificial Intelligence
- Machine Learning
- Data Visualization
The NSCC will be a magnet, attracting diverse thinkers and problem-solvers to join the national security conversation to uncover transdisciplinary solutions collectively. The NSA, ARL, USSS, and FBI are slated to join UTSA in the NSCC to conduct collaborative research and technology development. We are open to expansion, by adding federal and industry partners for both physical and virtual co-location within the NSCC structure.

UTSA is programming to enhance the cybersecurity ecosystem in the region. We will provide state-of-the-art space housing computational capabilities, including a Sensitive Compartmented Information Facility (SCIF) and an Innovation Factory where academia, industry, and government can rapidly develop products for application in the national security enterprise.

The NSCC will be a hub for cyber activity in the region showcasing:

**Secured Compartmentalized Information Center**
Classified Research/Federal Partners/Contractors
- A sensitive, compartmented information facility (SCIF) to support classified research and information exchange

**Cyber Protective Operations Center**
Federal Partners
- Operational, research, and training environments for cyber protection operations and investigations

**Innovation Factory**
Early Stage Technologies/Student & Faculty Start Ups
- A business incubator to assist faculty, students, and external partners in rapidly developing prototypes and concepts to be commercialized for the public good

**Research Centers**
C3A (Cyber, Cloud Computing and Analytics Research Centers) and Collaborative Research Space
- Access to one of the largest Open Cloud platforms in academia using OpenStack software

**Computational Technology**
Visualization Labs, High Performance/Cloud Computing, Data Center, Research IT Service Center
- A state-of-the-art visualization laboratory for translating data into images for large scale, high resolution digital walls or other devices
- A high-performance computing center to support the research and development of algorithms and systems for addressing computational and data intensive problems
NSCC Partnership Ecosystem

Letters of Support Received
Office of Mayor Ron Nirenberg
Office of Congressman Will Hurd
San Antonio Chamber of Commerce
San Antonio Economic Development Foundation
CyberSecurity San Antonio
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