

TNCC

Cybersecurity Program



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2019



Highlights of TNCC Cybersecurity Program

Designated a Center of Academic Excellence in Cyber Defense **CAE2y-CD** by NSA/DHS

Designed **two year Associate of Applied Science Degree** with focus in Cybersecurity

Designed Academic Cybersecurity **Career Studies Certificates**

Developed Cybersecurity BS **Articulation Agreement** with ODU

Developed **Workforce Cybersecurity Certificates**

Host annual Hampton Roads **Cybersecurity Conferences**

<https://tncc.edu/cybersecurity>



Lets Get Started

Did You Know That?

- VA Beach will be a Hub for (2) new undersea transatlantic fiber optic cables from Spain and Brazil
- The Military has conceded a portion of their own networks to Hackers
- Verizon is beginning to offer upstream Cybersecurity service options to its customers
- Companies banned from US Gov. (Lenova PC, *Huawei Tech*, Kaspersky Labs)
- Drones becoming a major threat to our Homeland and National Security
- We do not have any National Cybersecurity Defense Policy or Plan to define a Cyberwar and or a response to it**

Do I have your attention yet?



Cyber Jobs

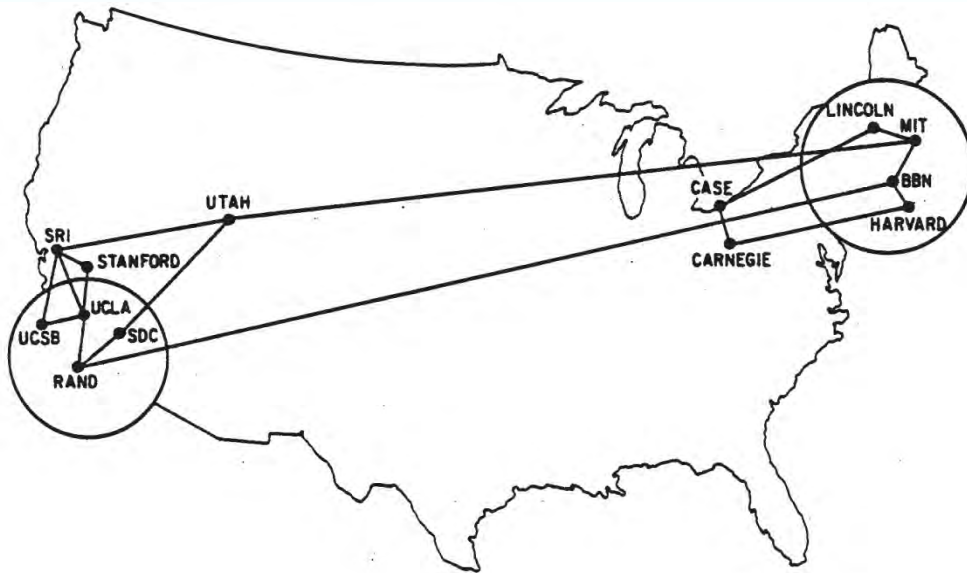
Gov. Ralph Northam noted that there are approx. **37,000 currently open Cybersecurity jobs in Virginia**, paying an **average annual salary of \$88,000**.

There are currently **1.1 Million** Cybersecurity related **open** positions Nation wide

It is expected that number will go up to **1.4 M open positions by 2020**



Birth of the Internet 1969



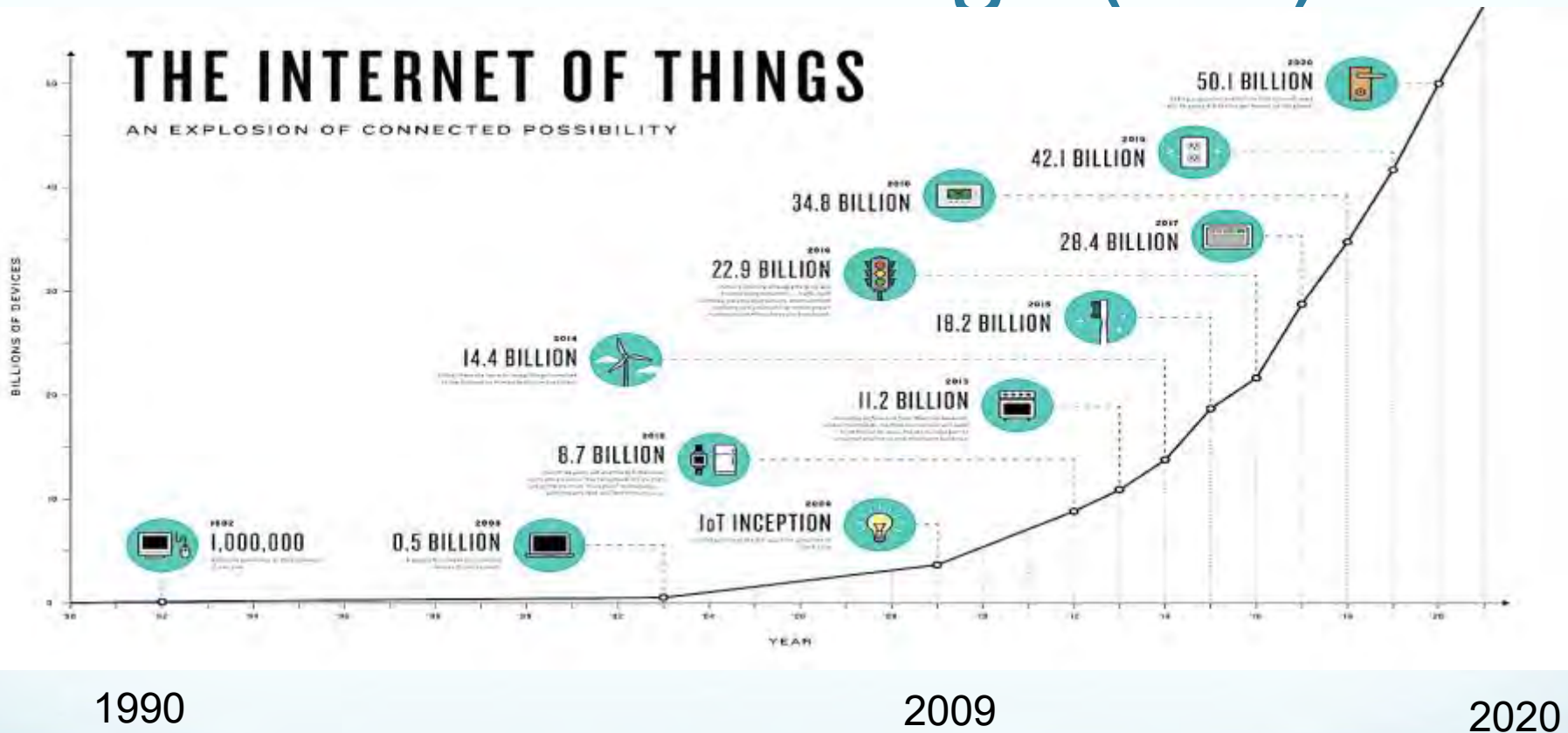
IBM 1960's Mainframe computer

DARPA was created in **1958** as the Advanced Research Projects Agency (ARPA) by the Dept. of Defense (DoD) to execute R&D projects and survive a Nuclear attack during the “Cold War”.

DARPA's involvement in the **creation of the Internet** began with an idea to **link time-sharing computers into a National system.**

The first Node (using TCP/IP protocol) was connected in 1969.

Internet of Things (IoT)



Regardless of the exact numbers, one thing is clear: there is much that can still be connected and it's safe to assume we'll probably reach the lower numbers of connected devices (20-35 billion) by 2020.

What is Driving The IoT



1960's



2000



Today



Risk Exposure



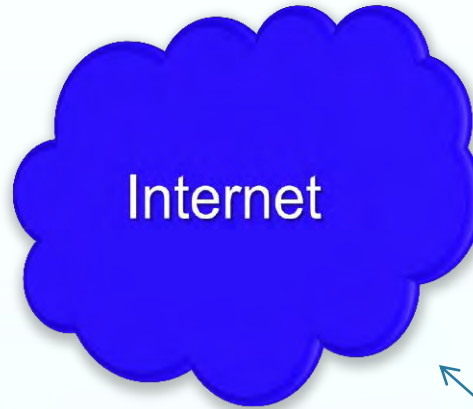
Home



Bad Guys



The World



Internet

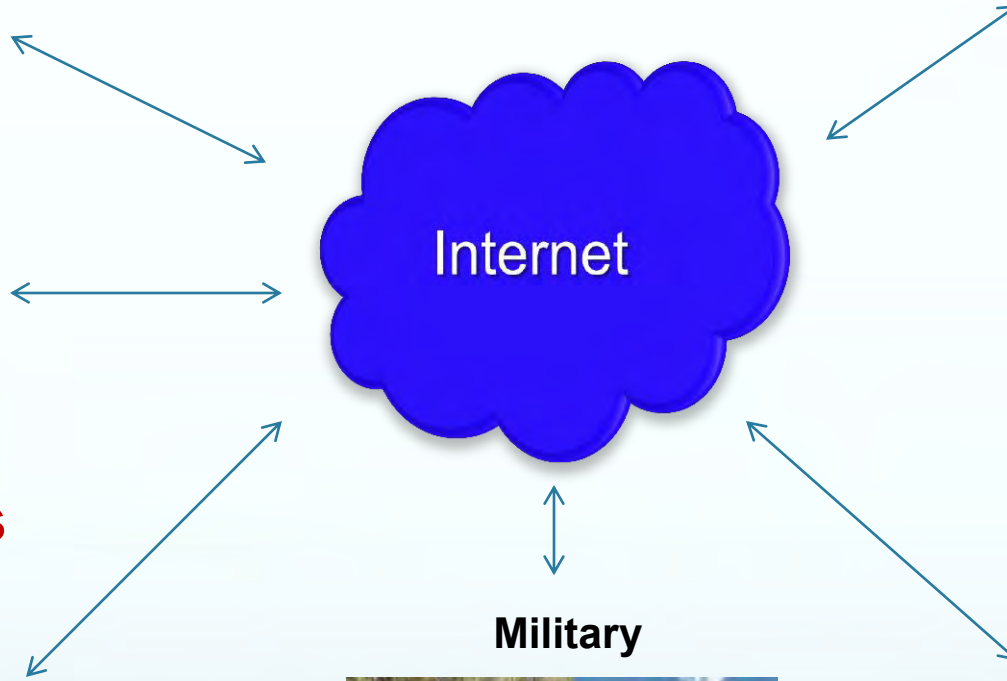


Government



Business

Military





Today Be
Thinking
About





Continues To Be The Fastest Growing Crime

What is Identity Theft?



Stealing Someone's Personal Identifiable Information (PII)

Bad Guy Action Plan

How do bad guys steal your identity

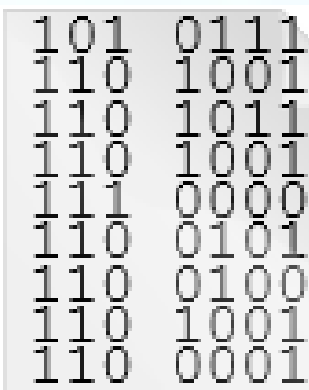
- They gain access to your home or business
- They gain access to your digital devices
- They hack into your digital devices
- They steal your info. from an on-line data base

Physical Prevention Tips

- Never discard documents into a public trash bin containing **Personal Identity Information (PII)**
- Always shred important documents
- Cut up all old credit and debit cards so that the information is not legible
- Never leave important documents lying around the house or on your desk at work

Dumpster diving or searching through your trash is fairly easy to prevent. It basically consists of taking the extra steps to make sure your personal identity information (PII) is properly disposed.

Define and Prioritize Your **Crown Jewels!**



- **Information is a critical asset**
 - Government
 - Business
 - Military
 - Personal (legal and financial documents, family photos, etc.)

- **Our failure to protect key information can directly affect**
 - Economic & Marketplace Advantages
 - R&D
 - National Security
 - Warfighters in the field!



Digital Prevention Tips

- Develop a good Cybersecurity **“Attitude”**
- **Use Common Sense and be a role model**
- Know that security measures are not 100%
- Assume you have been already Hacked



Actin Items

- Operate your PC in the **“Standard User Mode”**
- ID your most important data and store it off-line: example USB Drive
- Back up your USB drive weekly **(and use encryption)**
- Enable The Restore Function on your PC
- Install Router / Firewall between your COX Cable Modem and your Home Network
- Install Anti-Virus / Firewall suite on your PC Operating System O/S
- Keep O/S, Router/FW and Anti-Virus/FW up to date with the latest patches (weekly)
- Disable MS Macro features MS Office suite **(instead use Word Viewer in MS Office emails)**

Digital Prevention Tips

- Never open suspicious emails and or click on embedded Web links (**Phishing**)
- Maintain an encrypted vault for all your passwords and change regularly
- Use **2FA or multi-factor** Authentication Apps (examples below)
- **Verify** that you use (**HTTPS://**) in the URL window, especially when conducting any financial business on-line
- Do not download anything from **untrusted web sites**
- **Reconsider** using mobile devices for on-line financial transactions
- **Do not** use airport, restaurant, hotel, Cyber Café and or Public **use PC's for your financial transactions**
- Keep a separate PC for children and Grands to use

“Be Cybersecurity Vigilant”

Student Social Media (Digital) Activities Provide Parental Guidance




Friend or Foe


The image shows a screenshot of a Facebook profile page for a user named Nikki Green. The page is viewed from the perspective of Jane Smith, as indicated by the name in the top right corner. The profile header includes the name 'Nikki Green' and an 'About' dropdown menu. The main content is organized into several sections: 'Work and Education', 'Living', 'Family', 'History by Year', 'About Nikki', and 'Basic Info'. The 'Work and Education' section lists 'University of Central Oklahoma' as a college and 'The Pampered Chef' as an employer. The 'Living' section shows 'Fremont, California' as the current city and 'New Iberia, Louisiana' as the hometown. The 'Family' section lists 'Allen Miles' as a brother and 'Renee Chandler' as another family member. The 'History by Year' section provides a timeline of events from 1981 to 2012, including graduation from high school and university, and getting a tattoo. The 'About Nikki' section contains a short bio. The 'Basic Info' section lists 'Interested In' as Men, 'Sex' as Female, and 'Phone' as 1 405.650.4902. A 'Chat' button is visible in the bottom right corner.

facebook Search Jane Smith Find


Nikki Green About

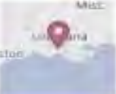
Work and Education

College  **University of Central Oklahoma**
Public Relations

Employers  **The Pampered Chef**


Living


 **Fremont, California**
Current City

 **New Iberia, Louisiana**
Hometown


Family


[Add as family](#)


 **Allen Miles**
Brother


 **Renee Chandler**


History by Year

2012  Moved

2011  Got a Tattoo

2010  Graduated from University of Central Oklahoma

1998  Graduated from New Iberia Senior High School

1981  Born on September 31, 1981

About Nikki

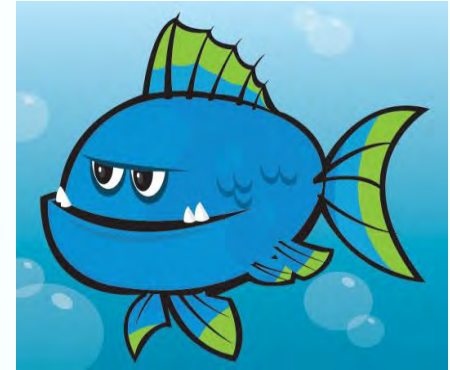
I am terribly boring, and a little bit consumed with politics. I'm a daughter to an amazing woman. I have a Boglen Terrier (Boston Terrier + Beagle) named Oreo. I like to read, I like to shop, I like to talk. I absolutely love everything that has to do with the beauty industry. I usually always trust my instincts because they rarely steer me wrong.

Basic Info

Interested In Men
Sex Female
Phone 1 405.650.4902 [Chat](#)

Phishing Emails

- Social engineering techniques that persuade you to **download rouge attachments (Malware)**, **click on an rouge embedded web link (Malware)** and or **make a rouge phone call (to provide PII)**



Hello!

As part of our security measures, we regularly screen activity in the Facebook system. We recently contacted you after noticing an issue on your account.

Spelling

Our system detected unusual Copyrights activity linked to your Facebook account , please follow the link bellow to fill the Copyright Law form:

http://www.facebook.com/application_form

Links in email

Note: If you dont fill the application your account will be permanently blocked.

Threats

Regards,

Facebook Copyrights Department.

Popular company

Threats From Emails

- Do not open un-trusted attachments or click links
- Do not open jokes or junk mail
- Do not respond to emails requesting financial info.
- Disable HTML and **Do** use “plain text” formatting
- Disable Microsoft Word “Macro”

<https://support.office.com/en-us/article/Enable-or-disable-macros-in-Office-documents-7B4FDD2E-174F-47E2-9611-9EFE4F860B12>

Email Security



What Should Cyber Citizens Do

Cyber Security
is everyone's
responsibility...
Protect your information
at home and at work!



Everyone's to Do List

- Recognition that our National Digital Infrastructure is a [“National Security Priority”](#)
- Support Passage of [Congressional Legislation](#) to protect U.S Information Systems
- **Review what really needs to be connected to the Internet**
- **Develop a strong Cyber Security mind set and attitude**
- **Practice safe computing and encourage others to do the same**
- **Continue your education and training on Cybersecurity – be aware!**

Remember

Its your responsibility to protect your own data

Do not rely on someone else to protect your data for you



Federal Laws

- The “**Federal Identity Theft and Assumption Act**” of 1998 makes Identity Theft a Federal Crime
- Criminal Penalties up to 15 years in prison
- <https://www.identitytheft.gov/>



On-Line Resources

Cybersecurity

- <http://www.consumer.ftc.gov/topics/privacy-identity>
- <http://www.fbi.gov/>
- <http://www.ic3.gov/>
- <http://www.dhs.gov/topic/cybersecurity>
- <http://www.us-cert.gov/nccic/>

Questions?

Contact us!

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