



# TECHNOLOGY BASED CRIMES UNIT

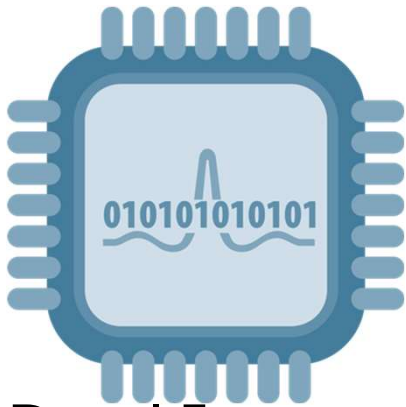
COBB COUNTY POLICE DEPARTMENT

SERGEANT J. V. HARDER

# UNIT STRUCTURE

- Major Crimes
  - Lieutenant
  - Sergeant
  - Five Detectives
    - 2-Video Analysis
    - 2-Computer Forensic Analysis
    - 1-Investigative Support / Mobile Device Forensics
- Partners with the United States Secret Services
  - Cyber Crime Task Force

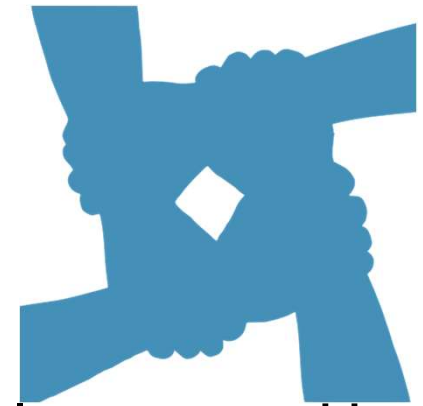




Digital Forensics



Criminal Investigations



Investigative Unit  
Support

## ROLES OF THE UNIT

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# DIGITAL FORENSICS

THE COLLECTION OF ELECTRONIC EVIDENCE FROM A ELECTRONIC DEVICE OR MEDIUM



# TRAINING

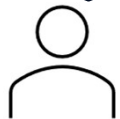
- International of Computer Investigative Specialists (IACIS)
  - Certified Forensic Computer Examiner (CFCE)
- Law Enforcement Video Analysis Training (LEVA)
  - Levels 1-3
- Tool Specific Training
  - Cellebrite Certified Mobile Device Examiner (CCME)
  - Sanderson SQLite Complete Training
- National Computer Forensic Institute (NCFI) – Hosted by the USSS
  - Computers/Mobile
  - Network Intrusion
  - Other Courses



# DIGITAL FORENSIC REQUESTS

## TYPES OF REQUESTS

I need digital  
evidence collected



Smartphones  
- Computers  
- Storage Media  
  USB Drives, etc..  
- Vehicles  
- Video Collection/Analysis/  
  Conversion  
- Internet of Things (IOT)  
  Gaming Systems  
  Home AI Systems  
  (Alexa/Google Home)



Examination  
Authority



Identify the  
Best tool  
for the Job

## TOOLS OF THE TRADE



*X-Ways*



**BERLA**

# BEST PRACTICES

- Scientific Working Group of Digital Evidence (SWGDE)
  - Comprised of Multiple Agencies to include NASA
  - Establishes Guidelines for Digital Forensics
  - Originally Established for File Development





# EXAMINATION REPORT

- Create a Forensic Report
  - Provide to the Detective
  - Assess Need for AI Media Categorization
- Forensic Analysis
  - In-Depth Data Review
  - Evidence Validation Steps
  - Longer Process

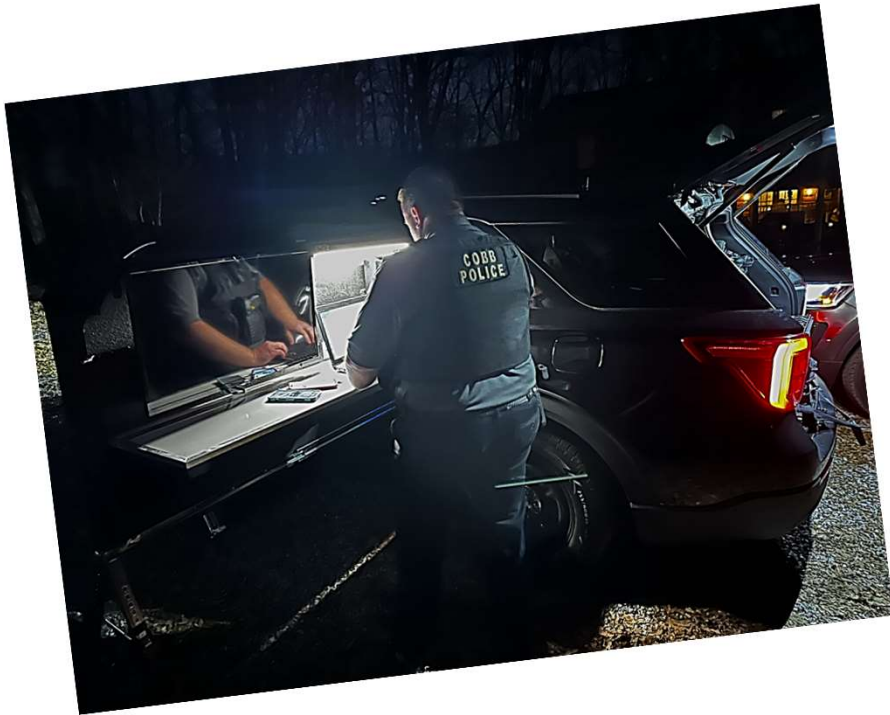


# ADVANCED PROCESSES

- Chip-OFF
  - Remove a Memory Chip from the Control Board
- Mobile Phone Repair
  - Batteries/Ports/Screens
- In-System Program (ISP)
  - Soldering wire to pre-determined points on a control board to collect the data.
- Vehicle Infotainment
  - Radio/Touch Screen Data from a Vehicle



# MOBILE FORENSIC SUPPORT



## CSI EFFECT

- Digital Evidence Takes Seconds
- DNA Comes Back the SAME Day.
- You can get evidence and convict within the same day.



To conduct a Proper investigation, it takes days to months and even years to collect all the needed evidence for a complete case.



# COMMUNITY OUTREACH

TECHNOLOGY-BASED CRIMES UNIT





## COMMUNITY OUTREACH

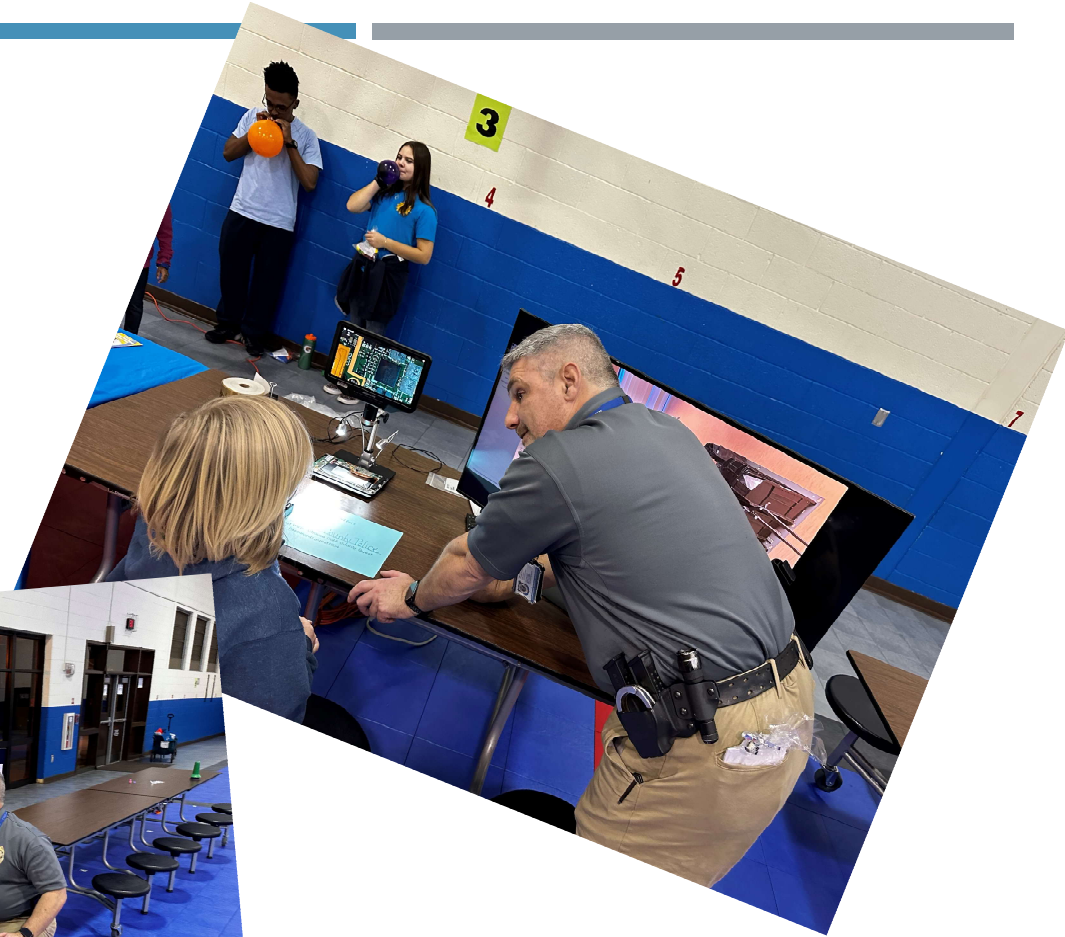


School STEM Nights



Internet Safety Presentations







# INVESTIGATION SUPPORT

TBCU SUPPORT





# INVESTIGATIVE SUPPORT

- Crimes with Electronic Evidence
  - Social Media Information Review
  - IP Address Tracing Assistance
  - Fraud Investigations Data Review/Comparison
  - Video Area Canvass to Trace Persons of Interest
  - Data Collaboration





# CRIMINAL INVESTIGATIONS

TECHNOLOGICAL BASED OFFENSES



## TBCU OFFENSE TYPES

- Computer Trespass
  - Unauthorized Access to a system in Cobb County.
- Computer Theft
  - Taking Documents from a Server in Cobb county when the individual did not have authorization.
- Computer Invasion of Property
  - Unauthorized access to a computer/network in Cobb County with intent of examining any employment, medical, salary, credit or other financial data. This does not apply for social media accounts.
- Computer Forgery
  - Alters or Deletes Data on a computer/network in Cobb County.
- Computer Password Disclosure
  - Person without authority discloses a password to a unauthorized individual to gain access to a computer/network in Cobb County.

# RANSOMWARE/DENIAL OF SERVICE

- Ransomware
  - Large Business in Cobb County
  - Cobb County Construction Company
    - Malicious Email
- Denial of Service
  - Poor Password Management
  - Took Over the whole system and began to enact service not authorized too.



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# COMPANIES BREACHED

- In 2023 (idtheftcenter.org)
  - 3,000 Plus Companies
- Company Types
  - Healthcare
  - IT Services
  - Media
  - Cyber Security
  - Telecommunications
  - Manufacturing



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# SPOOFING



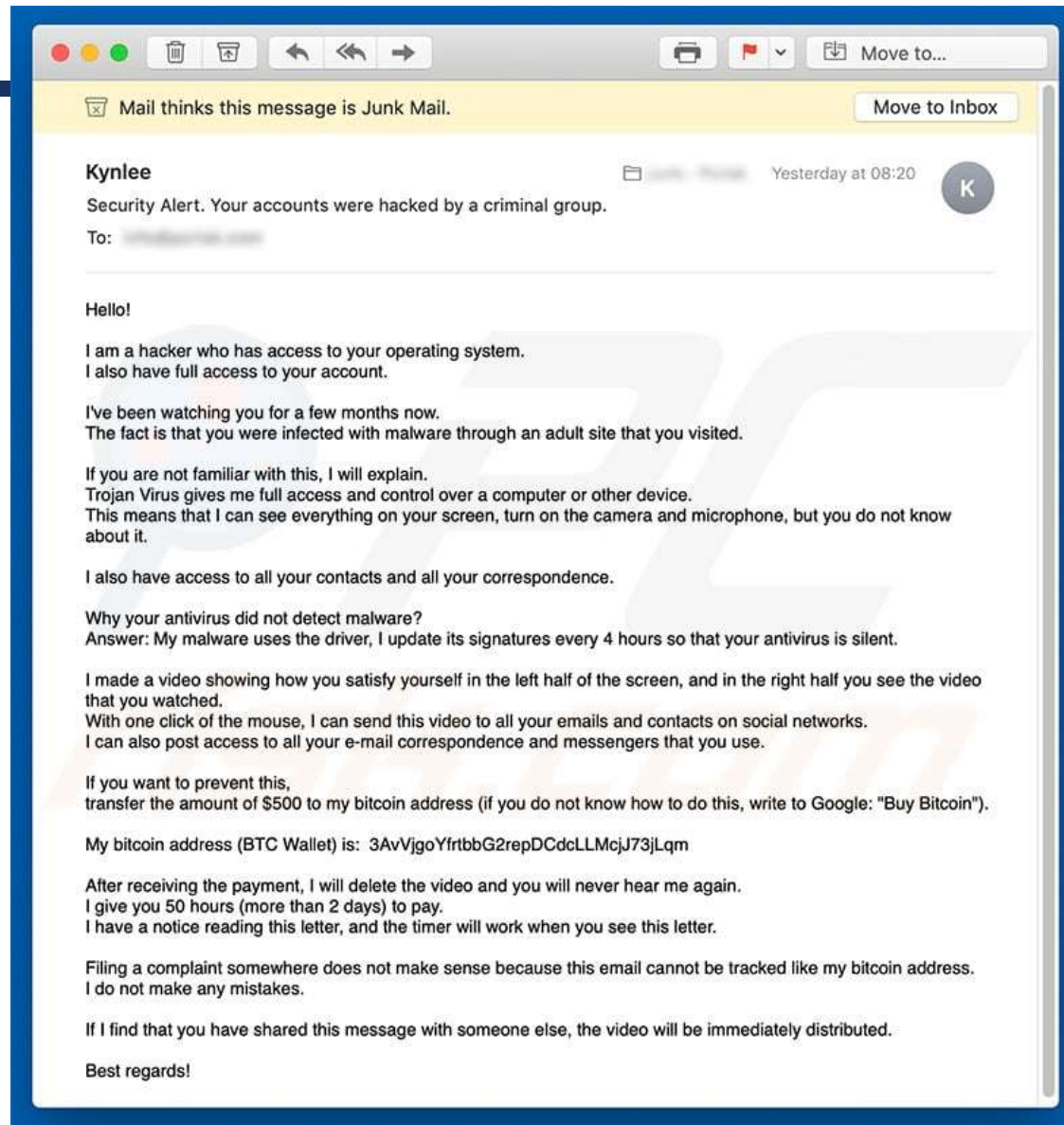
## PHISHING TEXT MESSAGES

BOA: Someone had accessed your account click this link:  
<https://itheys4.yoghy.com>

Amazon, Someone used your password click this link to change  
<http://isth.7th.com>

UPS: Your package has been delayed click the link: <https://oiuth.yuis.com>

Hey Mom, I cannot talk I was kidnapped. They said you must send money to this link: <https://ituehst.ytd.com>



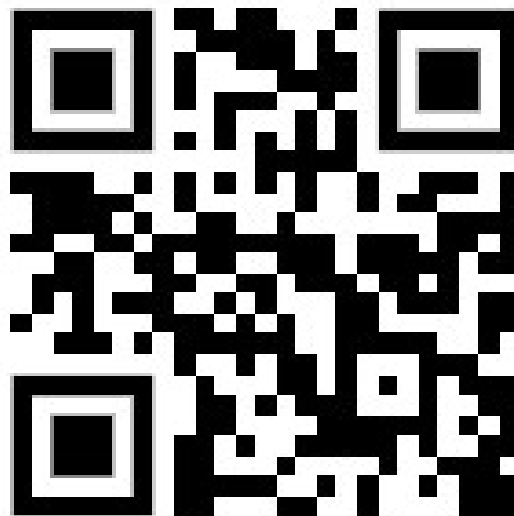


# HUMAN ELEMENT



- Poor Password Management
  - Password1234 / Password1234@ / Password1234#
- Failure to Set-Up 2FA
- Email Breaches
  - Clicking Links / Opening Documents
- Building Security
  - Allowing People Entry into Areas they do not have access to
  - Assuming a person you are holding the door for works there as well
  - Notify Proper Authority for personnel

## FCC CONSUMER INFORMATION



## INTERNET CRIME COMPLAINT CENTER (IC3)

- Run by the Federal Bureau of Investigations (FBI)
- Open to Private and Public Sector
- Recent Public Service Announcements
- Recourses if you fall victim to a Cyber Crime





# SELF-CHECK LIST

PROTECT YOURSELF



# PERSONAL CHECKLIST

- Parodically Change your passwords
  - Use a Password Creditable Password Manager
  - 2FA (Two Factor Authentication)
  - Passkeys
- Public Wi-Fi Networks
  - Use a Virtual Private Network
  - Do Not Access Sensitive Information
    - Banking, Medical, etc..
- Always call the company yourself through a validated number.
- Call The Family through your phone if you do not trust the person on the other side of the line.
- Do not give private information to unknown numbers or callers.
- Wait a few seconds after picking up and clap or snap your fingers before answering the phone.
- Use virtual card numbers where applicable.
- Download only Trusted Applications
- If a message looks off from a Facebook contact the friend directly.
- Monitor Notices of Companies being hacked.
  - Check your accounts tied to those companies and change the passwords.

# TECHNOLOGY DEPENDENCY

- Technology works perfectly 100% of the time.
  - FALSE
  - Can it do funny things and not mean you are being hacked? Yes
- Data breaches are from poor security on the electronic device.
  - FALSE: 74% of Data breaches are because of human error. (Infosec: 2023)
- Technology is 100% Secure.
  - FALSE





# THANK YOU

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TECHNOLOGY-BASED CRIMES  
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