Technology
Investment Council

November 2, 2021

I. **Meeting Call to Order/Welcome**
(CIO Jason Clarke)
Review and vote on previous meeting
minutes

II. **Secure End User Package
Overview**
(CIO Jason Clarke, CPS Justin Day)

III. **Security Update**
(CSO Solomon Adote)

IV. **Enterprise Update: GIS**
(CTO Greg Lane)

V. **Joint Legislative Oversight and
Sunset Committee Review
Discussion**

VI. **Public Comment**

VII. **Adjournment**
(CIO Jason Clarke)

AGENDA
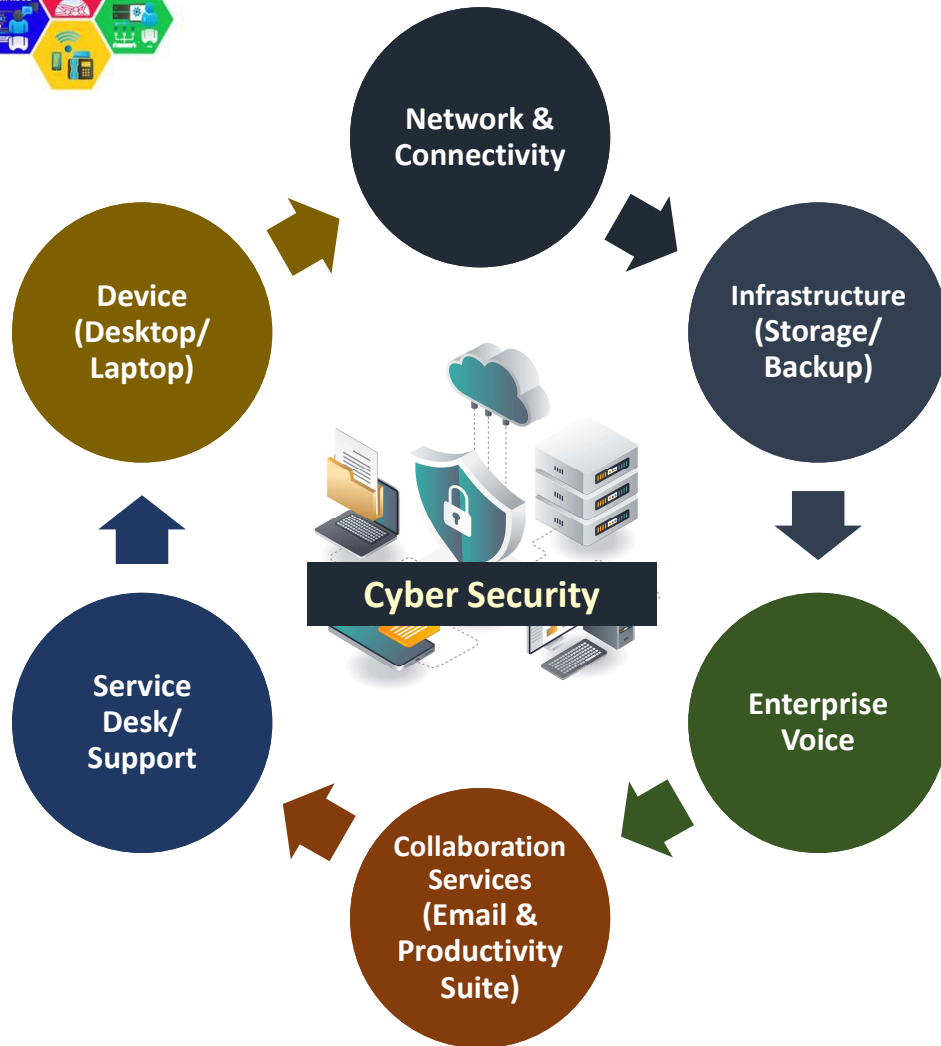
Secure End User Services

Secure End User Services (SEUS)

Network & Connectivity

Infrastructure (Storage/ Backup)

Device (Desktop/ Laptop)

Cyber Security

Service Desk/ Support

Enterprise Voice

Collaboration Services (Email & Productivity Suite)

Security:
- **Cyber security is <u>a top priority</u> for everyone**
- **We must secure the network for the enterprise; any vulnerabilities put us all at risk**
- **Support of in-office, remote, hybrid and brokered work environments = increased external entry to state systems**
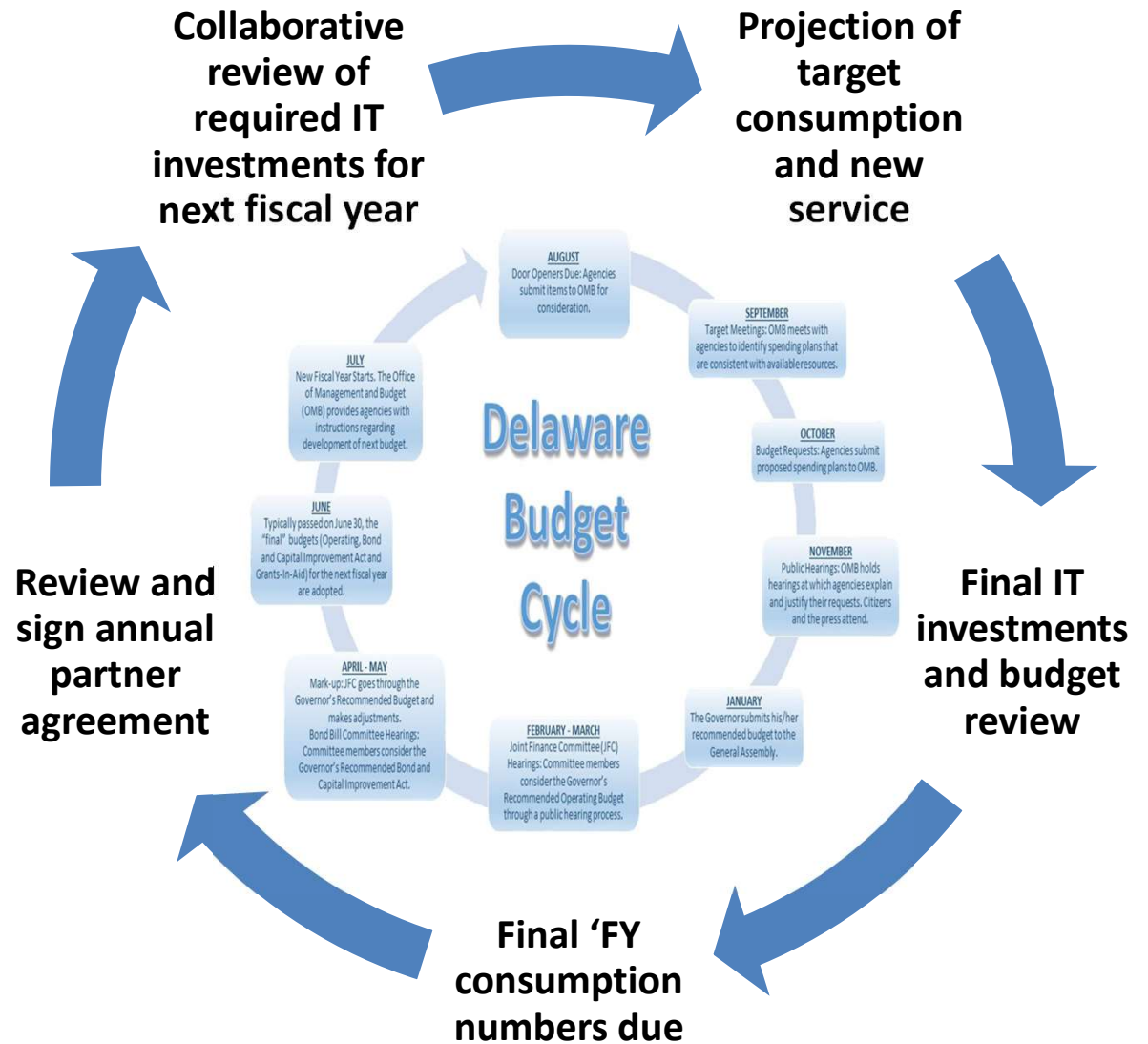
Support:
- **Standardization, equity, service level agreements**

Efficiency:
- **Leverage contracts, consolidation and aggregate spend**

Cyber Security Update: Fraud

Did You Know...???

▶ **47% of Americans experienced financial identity theft**
- Identity theft cases cost $502.5B in 2019
- Increased by 42% to $712.4B in 2020

▶ **Covid-19 related fraud dominated the events:**
- Unemployment fraud, Federal Stimulus Payments fraud

▶ **91% of cyber attacks started with phishing email**
- Fake emails that look legitimate, asking for account information

▶ **On the black market:**
- Average price for a stolen US credit card: **$1**
- Average price of a stolen healthcare record: **$10**

Cybercrime proceeds ($105B) outpace illegal drugs. Ransomware is leading the way in cyber security events.
- Why sell data when they can just get you to pay to get it back?

Colonial Pipeline confirms it paid $4.4m ransom to hacker gang after attack

The company's CEO authorized the payment as a means to restart the pipeline's systems quickly and safely

Associated Press

Wed 19 May 2021 21.07 EDT

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Cybercrime ramps up amid coronavirus chaos, costing companies billions

Ellen Sheng
@ELLENSHENG

SHARE f y in ✉

KEY POINTS

- Data breaches have grown in intensity and frequency in recent months as cybercriminals take advantage of coronavirus confusion.

- Large-scale data breaches increased 273% in the first quarter, compared to the same time last year, according to a new study from

Business Email Compromise (BEC)

Step 1: Identify a Target

Organized crime groups target U.S. and European businesses, exploiting information available online to develop a profile on the company and its executives.

Step 2: Grooming

Spear phishing e-mails and/or telephone calls target victim company officials (typically an individual identified in the finance department).

Perpetrators use persuasion and pressure to manipulate and exploit human nature.

Grooming may occur over a few days or weeks.

Step 3: Exchange of Information

E-MAIL
From: Finance Director
SUBJECT: Initiate Acquisition

The victim is convinced he/she is conducting a legitimate business transaction. The unwitting victim is then provided wiring instructions.

Step 4: Wire Transfer
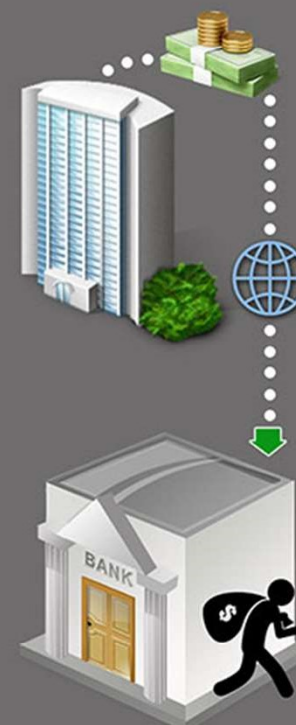
BANK

Upon transfer, the funds are steered to a bank account controlled by the organized crime group.*

*Note: Perpetrators may continue to groom the victim into transferring more funds.

Fraud Bait Through Text

Fraud Through Voice Cloning

Fraud Through Facial Cloning

- **3D masks used to beat video identity validation and Government ID validation solutions**

Cybersecurity Solution: Education & Training

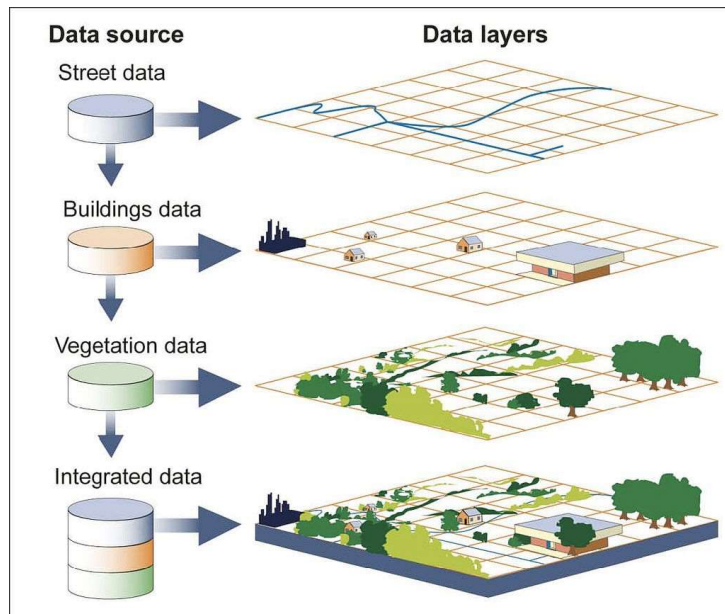**Teach employees and the public how to identify and handle potential cyber threats**

Cybersecurity Solution: Technology

- **Artificial Intelligence** - Enabled Government ID Proofing
- **Single Unique Identity** for Residents and Visitors
  - Identity proof once and use forever
  - Require MFA when connection is at risk

Enterprise Technology Projects: Update on GIS

Geographic Information Systems (GIS) - Update

Data source / Data layers
- Street data
- Buildings data
- Vegetation data
- Integrated data

Source: GAO.

* Our Broad Agency Announcement (BAA) grant to USGS for LiDAR requires 1/3 matching funds. Only $50,000 was available from agencies

REMINDER: At the last TIC meeting we voted to recommend establishing a position of Geographic Information Officer (GIO) for coordination and governance as recommended in a study by the University of Delaware ($110K - $145K: includes Salary, OECs, and Insurance)

➤ Delaware's GIS platform (FirstMap) was established in 2014. https://firstmap.delaware.gov/

➤ Annual funding is needed for Base Layer Components (Datasets)
  ✓ Aerial Imagery ($110,000) **$132,000**
  ✓ Light Detection and Ranging (LiDAR) ($500,000) **$636,200***
  ✓ Land Use/Land Cover ($140,000)

➤ State agencies rely on these datasets for daily business operations, and they are currently out-of-date.

➤ One or more datasets need to be updated each year at an estimated cost of $110,000 - $750,000.

➤ The DTI FirstMap Enterprise system hosts these datasets, providing storage, access, and eliminating duplication on agency servers.

Recommendations for State of Delaware GIS Coordination and Governance

August 2021

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In coordination with
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Office of State Planning Coordination

UNIVERSITY OF DELAWARE
BIDEN SCHOOL OF PUBLIC
POLICY & ADMINISTRATION

The State of Delaware has achieved impressive outcomes through "ad hoc" GIS coordination, including leveraging investments in geospatial data and analysis for the more effective, efficient, and transparent delivery of many state programs and services. However, the **current scale of geospatial investments across state agencies outstrips the capacity of Delaware's loosely coordinated GIS governance approach** to prioritize, fund, monitor, and diffuse lessons from these investments.

A core GIO function should be to coordinate the budgeting for, development or acquisition of, and delivery of critical geospatial data and analysis initiatives across Delaware. This study reinforced that, particularly around budgeting for necessary data, Delaware practices an ad hoc, "pass the hat" approach. While the practice of rigorous Return on Investment (ROI) analyses of GIS applications is not commonplace in Delaware, documented impacts indicate that GIS datasets and applications are necessary and should be budgeted for on a regular basis.

https://udspace.udel.edu/bitstream/handle/19716/29089/GIS-Coordination-Recommendations-2021.pdf

Geographic Information Systems (GIS) – Update Continued

Sample **Data Collection** Timeline for a 6-year contract (~$2,080,000 or $350k per year)

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• Aerials • LiDAR • LULC	• Aerials	• Aerials • LULC	• Aerials • LiDAR	• Aerials • LULC	• Aerials

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	|← FLIGHT →| WINDOW		|← Secure Funding →| Release RFP			|← Vendor Contract →| Deadline		

Last update was 2017

2017 Aerial Imagery

Partner	Amount
DDA	$10,000.00
DelDOT	$21,500.00
DDA	$7,000.00
DNREC	$35,000.00
DNREC Parks	$27,000.00
Leftover in Account	$17,740.00
Outside Partners	
Sussex County	$14,000.00
Total Collected	$132,240.00
Total Contract w/Surdex	$132,000.00

Note: These figures do not include the storage cost for these datasets.

- **Aerial Imagery (**$132,000**)**
- **Light Detection and Ranging (LiDAR) (**$636,200**)**
- **Land Use/Land Cover (**$140,000**)**

Key Findings

- Agencies typically fund activities for their "layer", but NOT Base Layer imagery

- Agency contributions in the past were from remaining funds from grants

- DelDOT funded the 2017 LULC

Decisions/Recommendations

- ☐ **Recommend requesting ARPA funding to establish a current (Year 1) baseline for all datasets ($500,000 - $1M)**

- ☐ **Recommend requesting the establishment of a fund with ~$350k added annually to cover the ongoing cost of keeping GIS data current**

Joint Legislative Oversight and Sunset Committee

Joint Legislative Oversight and Sunset Committee: TIC Review

TIC will be reviewed at an upcoming JLOSC meeting in February 2022. The JLOSC performs periodic legislative review of agencies, commissions, or boards to determine whether there is a genuine public need for the agency and use the review mechanism to strengthen and support agencies. This is the first time TIC has been reviewed.

Duties of TIC: Review

§ 9014C. Duties of the Technology Investment Council.

The duties of the Council are as follows:

- ❑ (1) **Adopt policies and procedures** used to develop, review and annually update a statewide technology plan and provide it to the Governor and the Director of the Office of Management and Budget.

- ❑ (2) **By October 1 of each year, the Council shall provide the Governor and the Director of the Office of Management and Budget with a statewide technology plan**. The plan shall discuss the State's overall technology needs over a multi-year period and the potential budgetary implications of meeting those needs.

- ❑ (3) By **November 15 of each year, the Council shall make recommendations to the Director of the Office of Management and Budget** regarding the funding of technology for the coming fiscal year. Prior to making its recommendations to the Director of the Office of Management and Budget, the Council shall confer with the Director of the Office of Management and Budget regarding the demands placed upon the state budget by nontechnology funding needs.

- ❑ (4) **Forward funding recommendations** made pursuant to paragraph (3) of this section to the Governor in their entirety.

- ❑ (5) **Enforce active project management**, review the progress of current projects to determine if they are on budget and have met their project milestones, and when necessary, recommend the termination of projects.

- ❑ (6) [Repealed.]

- ❑ (7) **Identify opportunities to leverage expertise in strategically important areas of information technology** by partnering with private sector entities. **Such opportunities shall be clearly set forth in the statewide technology plan called for in paragraph (2) of this section**.

Public Comment

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Visit us at DTI.Delaware.gov