Welcome
New Senior Team Members

Aleine Cohen, Deputy CIO

Jerry Whisman, Chief Operating Officer
UPDATE: Supporting State Workforce – Remote, Hybrid or On-Premise

• End-User Hardware
• Remote Access Services
• Citrix Virtual App/Desktop Update
• Office Space Reconfiguration Efforts
Security Update
National Cyber Security Headlines

Why local governments are a hot target for cyberattacks

Recent ransomware and other attacks underscore the value attackers see in the data stored in city and regional government systems. Here’s why they are vulnerable and what they can do to reduce the threat.

Cybercrime ramps up amid coronavirus chaos, costing companies billions

In the last 10 months, 140 local governments, police stations and hospitals have been held hostage by ransomware attacks

'Bapex predators': Why the Kaseya ransomware attack has experts worried

The gang behind a supply chain attack used tactics usually reserved for well-armed nation-state hackers. That could mean a new era of cyberattacks.

A Huge Ransomware Attack Messes With Texas

A coordinated strike against 23 local governments is called the largest such hack from a single source.
State of Cybersecurity

• The Ransomware Threat
  • Kaseya Attack
  • Delaware Readiness

• The Web Application Attack Threat
  • Partner State Web Site Compromise
    • Attack Vector
    • Compromise Spread Rate
    • Spread Vector

• Delaware Susceptibility to Such Attacks
  • Web Application Vulnerabilities and Protections
  • State Application Lifecycle and Support Gaps
  • Patch Management & Risk Assessment/W Scoring
DTI – Business Case process enables visibility of agency requests that can result in Enterprise Solutions that can be reviewed/approved by TIC

What other Channels should be considered?
A Geographic Information System (GIS) is a computer system for capturing, storing, checking, and displaying data related to positions on Earth’s surface. GIS can show many different kinds of data on one map, such as streets, buildings, and vegetation. This enables people to more easily see, analyze, and understand patterns and relationships.
Delaware’s GIS platform (FirstMap) was established in 2014.

Annual funding is needed for Base Layer Components (Datasets):

- Aerial Imagery ($110,000)
- Light Detection and Ranging (LiDAR) ($500,000)
- 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State agencies rely on these datasets for daily business operations, and they are currently out-of-date.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.

https://firstmap.delaware.gov/
### Examples of Key Uses

<table>
<thead>
<tr>
<th>DNREC</th>
<th>DelDOT</th>
<th>Homeland Security, DEMA</th>
<th>Department of Agriculture</th>
<th>Department of Education</th>
<th>DE Geological Survey</th>
<th>Delaware Small Business</th>
</tr>
</thead>
</table>
| • Coastal inundation analysis  
• Environmental reviews  
• Impervious surface modelling  
• Vegetation mapping  
• Tax Ditch channel program operations  
• Chesapeake Bay Program analysis | • Transportation Investment Districts (TID)  
• Travel demand model  
• Airport obstruction review  
• Trails and Pathways  
• Roadways, drainage features  
• Pedestrian, ADA assets | • Medevac landing zones  
• Incident Command System (ICS) staging  
• E911 Enhanced building footprints  
• Disaster damage estimates | • Farmland preservation, assessment, and easement stewardship  
• Forest inventory & analysis  
• Urban tree canopy analysis  
• Nutrient management and water quality impacts | | • Hydrologic drainage  
• Topographical maps  
• Soil and wetland analysis | • Site analysis  
• Site marketing |

### Geographic Information System (GIS)

- Nearly all State organizations utilize these datasets or data derived from them.
- This data is also used by counties and municipalities, and it is made public for use by other organizations and non-profits.
- A study by the University of Delaware recommended establishing a position of Geographic Information Officer (GIO) for coordination and governance.

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

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>Year 6</th>
</tr>
</thead>
</table>
| • Aerials  
• LIDAR  
• LULC | • Aerials  
• LIDAR  
• LULC | • Aerials  
• LIDAR  
• LULC | • Aerials  
• LIDAR  
• LULC | • Aerials  
• LIDAR  
• LULC | • Aerials  
• LIDAR  
• LULC |

### Additional Input from:

- **DGDC** - Delaware Geographic Data Committee
- **OMB** Office of State Planning Coordination
- **USGS** - US Geological Survey (National Geospatial Program)
Secure End User Services
Why Secure End User Services (SEUS)?

**Security** —
- Cyber security is a top priority 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

### SEUS Options

<table>
<thead>
<tr>
<th>SEUS</th>
<th>Centralized delivery of IT services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td>Agency receives base services from DTI while retaining ownership and responsibility for remaining services; must comply with all security standards</td>
</tr>
<tr>
<td>Opt Out (Liability)</td>
<td>Recommend removal from state network</td>
</tr>
</tbody>
</table>
## Secure End User Services Investments

<table>
<thead>
<tr>
<th>Service</th>
<th>Description</th>
<th>Agency A</th>
<th>Agency B</th>
<th>Agency C</th>
</tr>
</thead>
<tbody>
<tr>
<td>END USER PKG</td>
<td>One rate to cover multiple services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Desk</td>
<td>24/7 Technical Support (Service Desk, NOC) Incident support</td>
<td>Partial</td>
<td>Not Centralized</td>
<td>Centralized</td>
</tr>
<tr>
<td>Desktop Support (EDL)</td>
<td>Desktop, Printer support</td>
<td>Not Centralized</td>
<td>Not Centralized</td>
<td>Centralized</td>
</tr>
<tr>
<td>Network Services</td>
<td>LAN, WAN, Data</td>
<td>Not Centralized</td>
<td>Partial</td>
<td>Centralized</td>
</tr>
<tr>
<td>Voice Services</td>
<td>EVS, Conferencing, Messaging</td>
<td>Centralized</td>
<td>Centralized</td>
<td>Centralized</td>
</tr>
<tr>
<td>Email Services</td>
<td>E-mail, Calendaring, E-Mail Encryption, Enterprise Fax Service</td>
<td>Centralized</td>
<td>Centralized</td>
<td>Centralized</td>
</tr>
<tr>
<td>File Storage</td>
<td>E-mail file storage</td>
<td>Not Centralized</td>
<td>Not Centralized</td>
<td>Centralized</td>
</tr>
<tr>
<td>Security Services</td>
<td>Access/Identity mgmt., network/endpoint security</td>
<td>Partial</td>
<td>Partial</td>
<td>Centralized</td>
</tr>
</tbody>
</table>
Shift To Shared Cost Model

The Processes & Technology Side:

- Fixed Costs (like SEUS)
- Consumption Costs (Storage, Servers, Etc.)
- Project Costs (Managed or Brokered)

Agency - Fiscal Statement

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUPkg Annual Cost = # of Users x Service Monthly Rate</td>
<td>$$$</td>
</tr>
<tr>
<td>x 12</td>
<td></td>
</tr>
<tr>
<td>Less: IT Positions (FTEs &amp; Contractors) reallocated to DTI</td>
<td>($$$)</td>
</tr>
<tr>
<td>Expenses of EU Services/Tools paid to vendors prior to ITC</td>
<td>($$$)</td>
</tr>
<tr>
<td>Expenses of EU Services/Tools paid to DTI prior to ITC</td>
<td>($$$)</td>
</tr>
<tr>
<td>Net Impact</td>
<td>$$$</td>
</tr>
</tbody>
</table>
Service Consumption Lifecycle

Collaborative review of required IT investments for next fiscal year

Projection of target consumption and new service

Final IT investments and budget review

Review and sign annual partner agreement

Final ‘FY consumption numbers due
The Partner Experience

Each agency will have its own customized dashboard experience to view real-time metrics *(sample/example below)*:
Public Comment