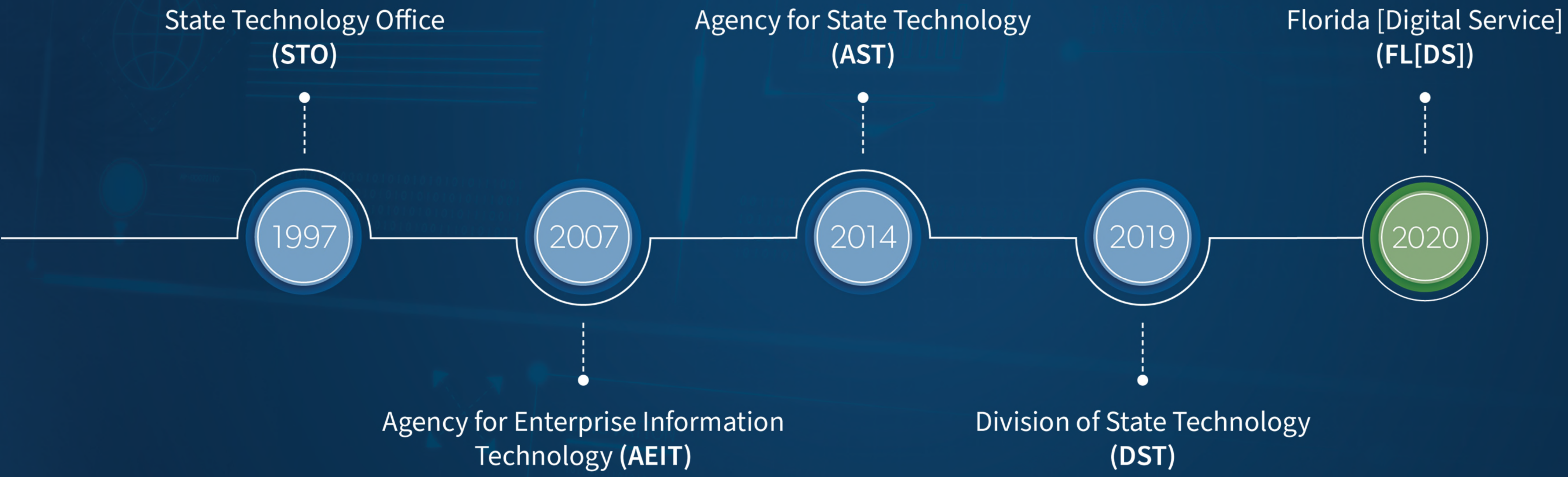
Florida [Digital Service]

CYBERSECURITY OPERATIONS

2023_JANUARY

The History of State Technology in Florida

So Challenged that it has Successfully Defied the Law of Bureaucracy



1997 State Technology Office **(STO)**

2007 Agency for Enterprise Information Technology **(AEIT)**

2014 Agency for State Technology **(AST)**

2019 Division of State Technology **(DST)**

2020 Florida [Digital Service] **(FL[DS])**

The Costs of Not Getting it Right

Since 2005, in Florida there have been...

FIVE
$10 MILLION+
canceled IT projects resulting in

$157.4 MILLION

in wasted funds. [1]

SEVEN
$10 MILLION+
completed IT projects that went collectively

over budget by

$327.5 MILLION. [1]

In 2020,

CYBERCRIMES

cost Florida

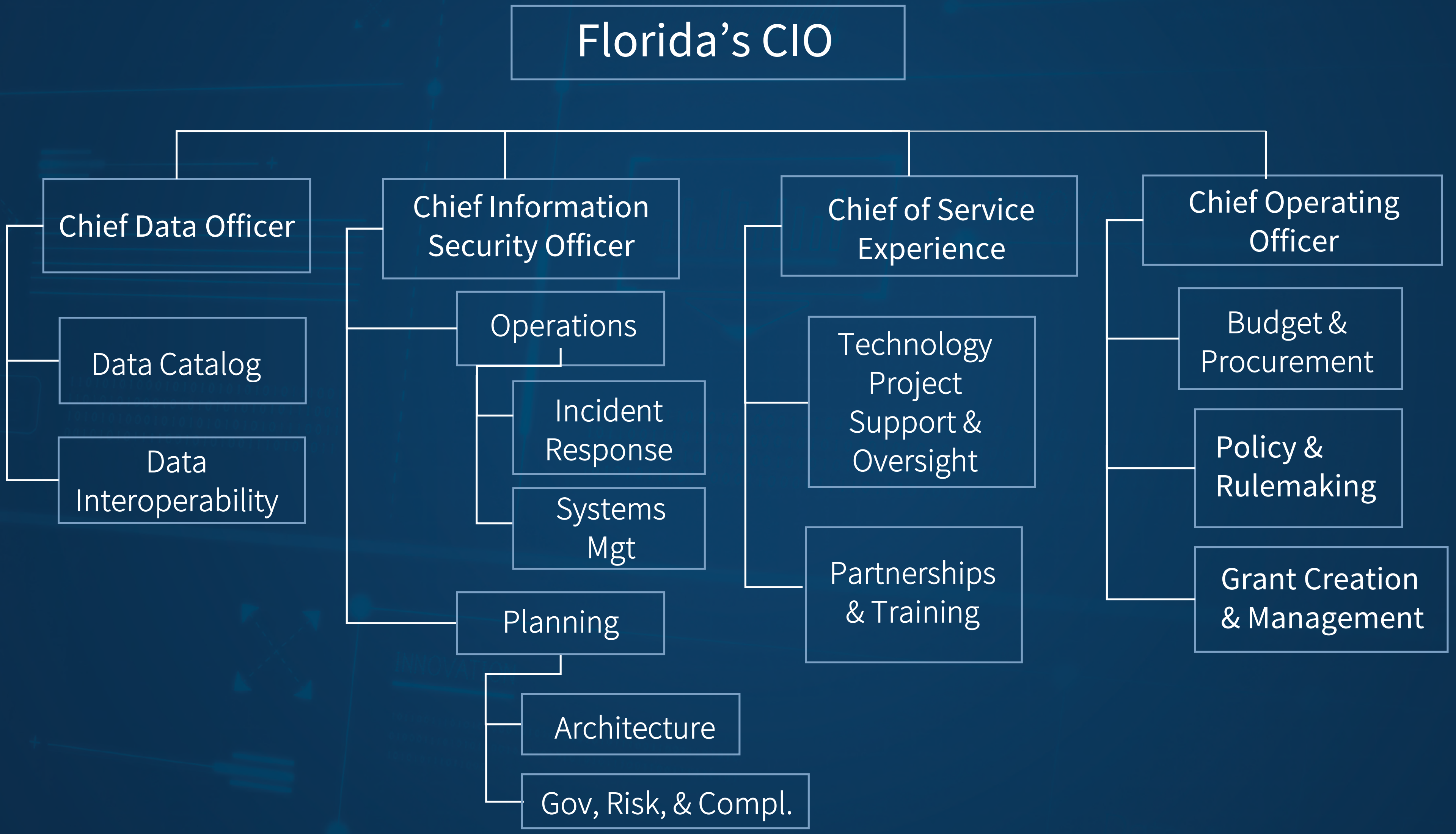
$295 MILLION, [2]

which ranks

4th **HIGHEST IN THE U.S.**

1. Leznoff, Joanne. 2021. "FDS- Florida Digital Service." House Government Operations Subcommittee. Florida House of Representatives.
2. Sharton, Brenda. 2021. "Ransomware Attacks are Spiking. Is your Company Prepared?" Harvard Business Review. Available at: https://hbr.org/2021/05/ransomware-attacks-are-spiking-is-your-company-prepared

The Structure of the Florida Digital Service



- Florida's CIO
  - Chief Data Officer
    - Data Catalog
    - Data Interoperability
  - Chief Information Security Officer
    - Operations
      - Incident Response
      - Systems Mgt
    - Planning
      - Architecture
      - Gov, Risk, & Compl.
  - Chief of Service Experience
    - Technology Project Support & Oversight
    - Partnerships & Training
  - Chief Operating Officer
    - Budget & Procurement
    - Policy & Rulemaking
    - Grant Creation & Management

Enterprise Cybersecurity Program

- FL[DS] serves as the lead state entity on cybersecurity. 282.318, F.S. directs the Digital Service to:
  - Operate and maintain a Cybersecurity Operations Center led by the State CISO, including a process for detecting, reporting, and responding to threats, breaches, or cybersecurity incidents.
  - Detect threats through proactive monitoring , continuous security monitoring, and defined detection processes.
  - Establish incident response teams.
  - Recover information and data in the event of a cybersecurity incident.
  - Establish managerial, operational, and technical safeguards for protecting state government data and information technology resources, including establishing standards and processes for assessing state agency cybersecurity risk.

Individual State Agency Responsibilities

- Section 282.318(4), F.S. includes requirements of each agency, including:
  - Designate an Information Security Manager (ISM), coordinate cyber training.
  - Establish an agency cybersecurity team to respond to an incident and immediately report all confirmed or suspected incidents to the State CISO.
  - Conduct, and update every 3 years, a comprehensive risk assessment, to determine the security threats to the data, information, and IT resources.
  - Submit annually by July 31, strategic and operational cybersecurity plans.
  - Implement managerial, operational, and technical safeguards and risk assessment remediation plans recommended to address identified gaps in data, information, and information technology resources of the agency.
  - Develop a process for detecting, reporting, and responding to threats, breaches, or cybersecurity incidents which is consistent with security rules, guidelines, and processes established by the Florida Digital Service.

The Current Posture

↑↓ Positive Increase / Decrease

↑↓ Negative Increase / Decrease

— No Change

FLDS:

- Number of FTE: 70
- Cybersecurity FTE: 29
- Total FY 2022-2023 Appropriation: $148.2M
- Total FY 2022-2023 Cybersecurity Appropriation: $62.2M

Agency Collaboration:

- Number of Agencies which had ever collaborated in real-time on cybersecurity prior to FLDS: 0
- Number Currently Collaborating in real time on cybersecurity with FLDS: 32↑
- Number of Agencies Fully Integrating with the CSOC: 9↑
- Number of Agencies Partially Integrating the CSOC: 23↑

↑↓ Positive Increase / Decrease

↑↓ Negative Increase / Decrease

— No Change

The Current Posture

High Level Threat Data

- Total Threat Sightings for the 6 agencies which have completed the Phase 1 integration with the CSOC : >2 Million↑
- Total Investigations Currently Open: 172 ↑
- Open Investigations per FLDS FTE: 2.45 ↑
- Open Investigations per Cybersecurity FTE: 5.93 ↑
- Threat Sightings per FLDS FTE: 28,571 ↑
- Threat Sightings per Cybersecurity FTE: 68,966 ↑

Florida’s First Cybersecurity Operations Center

Developing Security Capabilities from the Ground Up

Three Predominant Program Designs:

1. Single-Stack : procuring a standalone solution to operationalize all capabilities which eliminates dependence on third party integrations but limits product options.
2. Systems Integrator: procuring a single vendor to run the initiative and outsource all technology decision making to that vendor to determine design, architecture, and product roadmap (i.e., Deloitte, Accenture, KPMG, etc.).
3. Multi-Vendor Integrated Marketplace: a modular approach that supports numerous vendors and integrates multiple solutions.

FL[DS] selected #3 as the design for the CSOC for the following reasons:

- Establish a single point of ingestion, translation, and access for cybersecurity data.
- Avoid single vendor dependence.
- Provide access to the best solutions for each function.
- Avoid requiring agencies to adopt a single technology stack for all necessary functions.
- Preventing agencies from having to rip and replace certain solutions already deployed.

Ending the Siloed Approach to Security

FL[DS] began by focusing on two very real threats to the enterprise:

1. Zero state agencies were sharing security data or collaborating in real time on cybersecurity.
2. Unsupported and unsecured versions of Microsoft Office were being used prominently across state government.

FL[DS] offered to fund solutions to all state agencies. Initially, 21 of 36 state agencies opted to participate:

- FL[DS] funded cloud-based Microsoft Office Suite, including cloud-based email.
- Third-party, private sector implementation services, included at no additional cost to the taxpayer.
- Microsoft included engineering support post-implementation at no additional cost to the taxpayer.
- FL[DS] generated significant savings by purchasing as an enterprise which saved 25% ($4M) above and beyond state term contract.

FL[DS] has committed to provide these solutions to 7 additional enterprise entities which have opted in.

Florida’s First CSOC

Launching the Core Functionalities

Building upon the focus on eliminating unsupported and unsecure productivity software, **FL[DS] deployed the core functionalities of a Cybersecurity Operations Center** including:

- **Asset Discovery** to identify and inventory enterprise technology resources:
  - Agent-based solution focused on infrastructure and supported with Managed SOC Services.
  - Agentless solution focused on network traffic and supported with managed services.
  - Internet-facing attack surface discovery.
- **Endpoint Detection and Response** to provide comprehensive and complimentary enterprise support.
- **Managed SOC Solution and Services** software which integrates all other incorporated solutions and supported by 24/7/365 Managed Security Services.
- **Content Delivery Network** to manage and secure enterprise web assets, both .com and .gov.
- **Training** Cyber range infrastructure and curriculum to support cybersecurity training and skill development.
- **Licensure and Credential Access** FL[DS] proof of concept to explore workstation licensure and credential management to ensure efficient offboarding of employees.

Quantifying the Threat Landscape

⬆⬇ Positive Increase / Decrease

🔺🔻 Negative Increase / Decrease

— No Change

Asset Discovery: External View

- Total On-premise Assets Discovered: 961,386 ⬆
- Total Cloud Assets Discovered: 9,018 —
- Open/Critical Issues: 4,030⬇ / 274 🔺
- Top Threat: Insecure Web Servers (56)

Asset Discovery: Network Sensors (last 30 days)

- Discovered Devices: 360K ⬆
- High Risk Devices: 13.4K ⬆
- Threat Activity: 5,600 Events ⬆

Asset Discovery: Endpoint Sensors (last 30 days)

- Endpoints w/ Agent Installed: 6,242⬆
- Discovered Devices: 10,683🔻
- Devices Missing Patches: 6,578🔺 (301 Critical)

Endpoint Detection and Response (30 Day Lookback):

- Resolved Incidents (30 days): 190⬇
- Threats Detected (30 Days): 192 ⬇
- Malicious Threats Mitigated (30 Days): 39 ⬇
- Closure Rate Prior 30 Day Period: 99.68%⬆
  - 30 day period prior was 83.52%
- Current Closure Rate: 98.95%🔻

Content Delivery Network (30 Day Lookback):

- State Websites Actively Protected: 51⬆
- Attack Traffic Diverted: 6.4 Million Events (e.g., Botnet, DDoS)⬆

Cyber Security Updates:
Strategy and Planning – 2022 Review

- **CSOC launched**
- **State Incident Response Plan Published**
  - **Living document to support state and local entities needing to report a cybersecurity incident to facilitate incident response**
- **Launched Cyber Range training capabilities with real-time blue team training for security professionals to respond to an active intrusion or attack.**
  - **20+ agencies have either run or are scheduled to run exercises since September 2022 on the Cloud Range platform**
- **Established Statewide Cybersecurity Strategic Plan:**
  - **Redesigned FL enterprise security by taking the approach of a partner vs an enforcer.**
- **Updated Agency Cybersecurity Strategic and Operational Plan (ASOP) process to align to the Statewide Cybersecurity Strategic Plan:**
  - **Rebuilt antiquated ASOP process, reduced time agencies had to spend preparing the plan by 75%.**
- **Established quarterly Incident Response reporting to map trends in enterprise security**

Building Upon the Success in 2022

Expanding the Program's Capabilities

- Acquire and deploy a Governance Risk and Compliance software suite
- Provide Identity and Access Management solution(s) for the enterprise
- Provide Multi-factor Authentication solution(s) to the enterprise

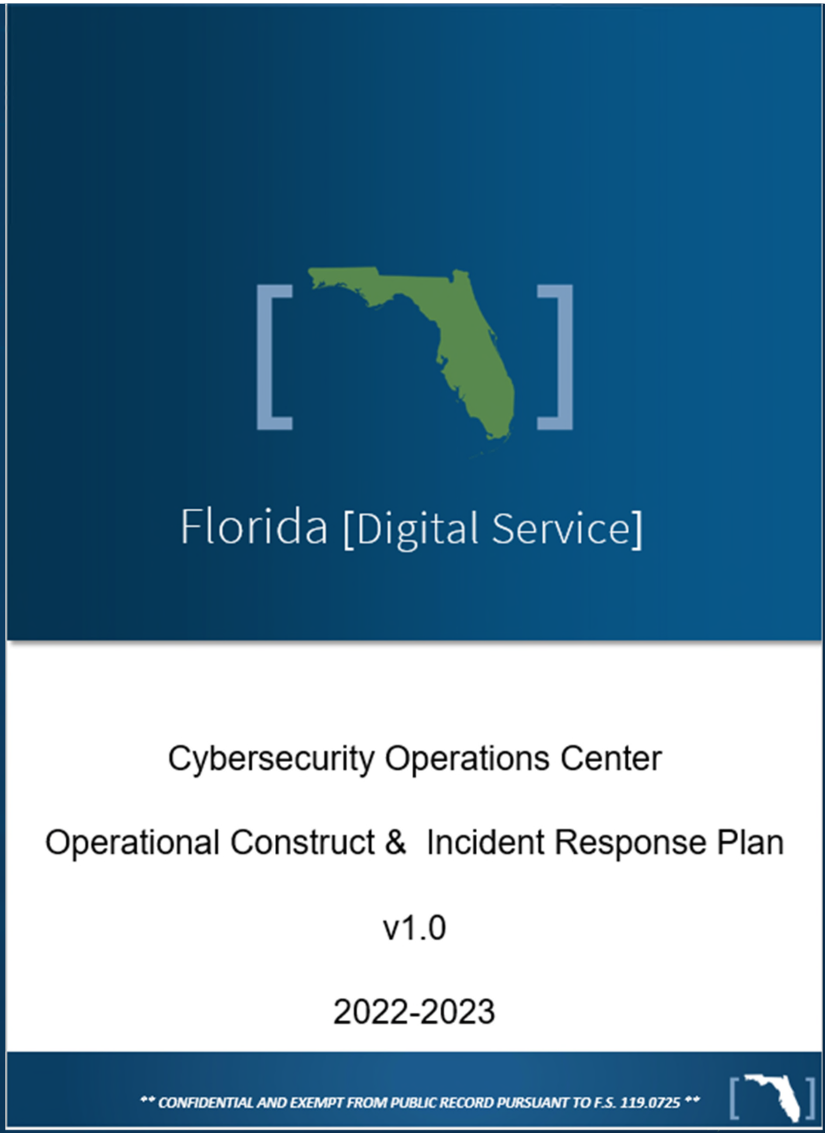
"Whole of State" Cyber to Extend the Reach of the Program Beyond State Government

- $30m to deploy cybersecurity capabilities to local government entities through a competitive grant program
- Expand cybersecurity training opportunities to state and local entities
- Develop and publish 2023 Statewide Cybersecurity Strategy
- Review and update reporting method for Agency Strategic and Operational Cybersecurity Plans
- Expanding the FIRE Team Footprint to increase incident response times and effectiveness

FL[DS] CSOC - Incident Response Plan

- A **living document**…not intended to be static
- Shaped by government/industry **best practices** and operational **lessons learned**
- Codifies CSOC’s **operational** processes and procedures
- Provides a **baseline operations construct** between CSOC and state-wide cybersecurity stakeholders

- Email: CSOC@digital.fl.gov for a copy



Florida [Digital Service]

Cybersecurity Operations Center

Operational Construct & Incident Response Plan

v1.0

2022-2023

** CONFIDENTIAL AND EXEMPT FROM PUBLIC RECORD PURSUANT TO F.S. 119.0725 **

** CONFIDENTIAL AND EXEMPT FROM PUBLIC RECORD PURSUANT TO F.S. 119.0725 **

House Bill 7057 - Public Records Exemptions

Aligns local government with state agencies, exempting:

- Coverage limits
- Critical infrastructure information
- Network schematics, hardware and software configurations, and response practices
- Public meetings regarding exempt information

Additional Requirements

- Reporting ransomware and high severity incident to CSOC
- After action reports
- Adopting cybersecurity standards
- Employee cybersecurity training

Local Government Cybersecurity Grant

	Federal Grant	Florida Plan
Deliverables	Funding & Capabilities*	Capabilities
Match Requirement	Increasing Match Amounts at Local Level	No Match Requirement
Total Amount	$30 Mil over 4 years	$30 Mil in FY 22-23
Additional Requirements	Ongoing Monitoring & Recommendations	Cooperation with CSOC

All applications received in response to the federal grant program will be reviewed and all eligible applications will be considered by FL[DS] for participation in the Florida funded grant program.

Local Government Cybersecurity Grant

Governor DeSantis expects Florida to lead the nation in cybersecurity capabilities. That’s why he asked for and the legislature responded with $30m for local government cybersecurity technical assistance grants

The Florida Plan

- Provide integrated capabilities and avoid complex and bureaucratic grant processes that award money
- No required match funding from the recipient - just partnership
- Maintain your autonomy with Least Privilege Access and DSAs
- Future funding subject to appropriations…

Functions and Capabilities

- Asset discovery & inventory
- End point detection & response
- Content delivery network
- Incident Response Assistance
- Email security service
- 24/7/365 Monitoring & Response Service

Local Government Cybersecurity Grant

	Start	End
Application Period	February 1	March 31
Initial Award Announcements	April 15	April 30
Implementation	April 30	June 30
Subsequent Award Period	TBD	TBD

Application Portal Opening On February 1st: cybergrants.fl.gov

Program Contact Email: cybersecuritygrants@digital.fl.gov

Questions?