

Discussion Points

Organized “in but not of” the Department of the Treasury, the Office of Information Technology (OIT) provides information technology services to State agencies. To that end, it oversees the mainframes, servers, networks, and databases that compose the State’s information technology infrastructure; operates the Garden State Network, a Statewide integrated communications network; and runs the State’s major data centers, including the Office of Information Technology Availability and Recovery Site (OARS). In addition, the OIT manages the State’s Internet environment and offers application development and maintenance, geographical information systems, data management services, and telephone services for all State offices. State agencies, in turn, are responsible for the day-to-day management and operation of their agency-specific infrastructure components. The OIT has a recommended FY 2019 budget of \$151.9 million for 631 funded positions.

1. Executive Order No. 225 of 2017 (“E.O. 225”) directs the Chief Technology Officer (CTO) to “set in motion a course of action that will deliver more secure, reliable and efficient IT services across the Executive Branch.” To that effect, E.O.225 ordered the CTO to take any actions necessary to decentralize software development and maintenance functions and operations for agency-specific applications that do not serve shared business requirements across the Executive Branch. The order also directed the CTO to undertake a thorough review of the State’s information technology infrastructure to identify opportunities for centralizing common information technology functions and operations. The order authorized the CTO to ask all departments and agencies to submit, within 30 days of the CTO’s request, an inventory of all information technology infrastructure assets under the management of department or agency staff and a roster of all staff performing information technology infrastructure functions and operations. The CTO was authorized to transfer to the OIT the ownership and management of an information technology asset included in the departmental and agency submissions. The order permitted the CTO to ask departments and agencies to submit a roster of legacy applications in need of modernization within 60 days, and proposals for the modernization or decommissioning of such applications within 180 days.

The CTO was required to inform the Governor of the plan for consolidating information technology infrastructure assets and functions no later than 180 days following the issuance of E.O. 225.

- **Question:** Please provide an update regarding the implementation of Executive Order No. 225. Did the CTO submit a plan for the consolidation of information technology assets and functions? If so, please provide a copy of the plan. If not, when does the OIT expect the plan to be submitted? Please identify the software development and maintenance functions, formerly executed by the OIT, which have been moved to individual departments or agencies. How many OIT staff were transferred to other departments and agencies during the decentralization process? Please detail the transfer of any staff from other departments and agencies to the OIT as part of the implementation of Executive Order No. 225. Please provide an inventory of legacy applications in need of modernization and indicate whether each application is intended to be modernized or decommissioned and by what date the modernization or decommissioning is intended to occur.
- **Answer:**

Activities in support of Executive Order No. 225 have been in progress since its enactment and continue daily. To date, all personnel transactions related to both the decentralization of Application Development and consolidation of Infrastructure

Discussion Points (Cont'd)

support staff have been completed. Nearly all impacted decentralization staff have moved to agency locations. Most of the staff who transferred into OIT remain at the former agency location, supporting local infrastructure during the FY18 transition period. Dozens of technical tasks were performed to enable a seamless transfer without impact to operations.

An initial inventory of information technology infrastructure assets under the management of department and agency staff was received June 30, 2017. After review, consolidation of the ownership and management of over 9,000 infrastructure assets across the state in 890 locations, including DOT's fiber optic network supporting traffic management systems completed on September 30, 2017.

A team was staffed to formulate a tactical plan to consolidate agency infrastructure into the enterprise data center known as the Hub, located in West Trenton. Assessment of agency computer room conditions, application architecture and criticality, in consideration with ongoing agency infrastructure needs, is in progress to drive the priority for the initiative. A draft consolidation plan is under review. Once selected, the new Chief Technology Officer will review the draft consolidation plan and a decision about its implementation will be made.

In accordance with EO225, application development staff were decentralized to the associated agencies, effective July 22, 2017. The counts and agency details are in Attachment A. All functions related to new development as well as maintenance and support of existing applications specific to an agency were transferred to Executive branch departments and agencies, regardless of staff transfer. Support of enterprise applications that was performed by OIT developers remained with OIT.

2. P.L.2017, c.2 established the "New Jersey Open Data Initiative" that requires that certain information generated by State departments and agencies be readily available on the Internet. Under P.L.2017, c.2, the OIT's Chief Data Officer is responsible for creating and maintaining a unique, dedicated open data website and overseeing any additional or existing open data websites maintained by Executive Branch agencies. Each agency is required to either provide datasets to the Chief Data Officer or create and maintain links to the datasets on the agency's website. Agencies that choose to host their open datasets on their own websites are to provide links to the Chief Data Officer so that they may be published on the State's open data website. Agencies are required to update the open data and datasets on a timetable determined by the Chief Data Officer.

The Chief Data Officer is required to establish, in consultation with the Attorney General, procedures, standards, and best practices regarding the appropriate access and presentation of open data and datasets by each agency. The Chief Data Officer also provides management and technical assistance necessary to ensure ready access to the open data and datasets and is required to develop a methodology to review and reconcile inter-agency disputes regarding access to open data and datasets, and privacy issues. Agencies are required to adopt policies that are consistent with the open data security and technical standards, policies, and practices established by the Chief Data Officer. Each agency must create an inventory of its open data and datasets, provide explanations about the open data, their format, how often the open data and datasets are updated, and how notice regarding such updates can be obtained. Agencies are also required to assist users seeking to gain access to the open data through the deployment of online access tools and the development and publication of

Discussion Points (Cont'd)

application program interfaces. Unless a fee is required by law, open datasets are to be provided by an agency without cost to the public.

- **Question:** Please provide an update regarding the implementation of the New Jersey Open Data Initiative. Has the Chief Data Officer developed a unique open data website? Has the Chief Data Officer established standards and best practices regarding the access to, and presentation of, open data and datasets by Executive Branch agencies? Are those standards different from prior OIT standards regarding public access to agency data? Have all Executive Branch agencies complied with the requirements of the New Jersey Open Data Initiative? Has the Chief Data Officer established a timetable governing agency updates of open data and datasets? If so, please provide the timetable.
- **Answer:**

The Chief Data Officer (CDO) led an agency executive briefing on the NJ Open Data Initiative shortly after its passage in February 2017. The participants were senior Executive Branch agency business and technology representatives who had been identified by their Commissioners. The briefing delivered an overview of the requirements of the legislation; a high level explanation of the “open” data classification; and a roadmap for compliance. As an action item from the executive briefing, agencies were each asked to identify a data steward with whom the Open Data Center team could work to identify and publish their open datasets. Once a data steward was identified by an agency, the Open Data Center team provided technical training on how to identify and publish open datasets.

The New Jersey Open Data Center (NJODC) was re-launched in July of 2017 for the purpose of serving as the State’s single, unique website for the publication and consumption of agency open data. The website is built on a platform utilized by many other states for the dissemination of their open data, incorporating best practices from industry and government. The Open Data Center team worked with the vendor to define and deploy enterprise standards for the presentation of and access to agency open datasets posted to the website. (<https://data.nj.gov/>)

These standards apply only to datasets classified as “open” and not to all data collected or generated by an agency. The CDO is presently working with the State Attorney General’s office to draft the enterprise governance model and data standards for the appropriate use and dissemination of data across the Executive Branch, while maintaining compliance with State and Federal privacy and security regulations and statutes.

Many agencies, recognizing the value of open data, have embraced the NJODI and are in compliance. However, some agencies have had challenges identifying their data steward and providing open datasets for publication. NJOIT continues with its efforts to assist Executive Branch departments and agencies in using the NJODI. A process to migrate agency datasets published on departmental websites over to the State’s open data website has been developed.

Each dataset is governed by its own timetable for refresh and update. A dataset may be a one-time snapshot, provided monthly, quarterly, annually or every few

Discussion Points (Cont'd)

years - making a single update schedule difficult with which to comply for an agency. Updates may be automated or part of a repeatable process. At a minimum each agency is responsible for reviewing its published catalog annually to ensure scheduled updates are taking effect.

3. In October 2014, the OIT issued Policy No. 14-31-NJOIT "Contingency Planning Policy." The policy describes the actions to be taken to restore and recover critical information technology systems and data quickly when an unplanned event renders them unavailable. The policy applies to the entire Executive Branch.

The "Contingency Planning Policy" establishes requirements for developing a contingency plan that will take effect in the event of a reduction or loss of information technology services to employees. Each entity is required to: (1) perform a Business Impact Analysis (BIA) for all systems to acquire an understanding of the potential risks that may affect critical business functions; (2) determine the required availability (acceptable downtime) of all systems and networks and use this information to create the contingency plan and develop a backup system; (3) store backup media, documentation, and other IT resources necessary to recover and resume IT processing at an off-site location; (4) develop, maintain, and test a contingency plan for the critical systems identified in the BIA; and (5) perform annual training and testing of the contingency plan to ensure all critical participants know their roles and responsibilities and to facilitate any needed corrections to the plan.

On December 14, 2016, the Office of the State Auditor issued an audit of "Statewide Information Technology Contingency Planning." The audit concluded that the OIT and agency chief information officers have recognized the importance of contingency planning and incorporated certain procedures to enable planning and recovery. However, the overall status of contingency planning, including risk assessment and prevention, for critical applications needs improvement as a risk of failure to recover critical applications in a timely and effective manner exists. The audit also noted opportunities for improved guidance and monitoring of Statewide information technology contingency planning efforts.

In summary, the audit found that there is no centralized monitoring or coordination of Statewide information technology contingency planning. Agencies' efforts to comply with the OIT "Contingency Planning Policy" vary in cost and quality. There were also operational deficiencies at the OIT Availability and Recovery Site (OARS) that could hinder the State's ability to support critical applications in the event of a disruption. Many agency contingency and disaster recovery plans were not current and had not been tested. In its audit response, the OIT noted that the contingency planning policy process was being revamped to provide a formalized methodology for implementing agency recovery plans. The OIT also stated that it was vetting its inventory of State information technology systems in order to better refine their business criticality ratings. The OIT has also increased its disaster recovery staff to better assist agencies with disaster recovery planning and exercises.

- **Question:** Please provide an update regarding the OIT's contingency planning efforts. Has the OIT developed a methodology for monitoring and coordinating Executive Branch contingency planning and recovery efforts? How does the new process differ from the previous methodology? Please discuss the OIT's efforts to monitor and assist State agency efforts to update and test contingency and recovery plans. Please discuss the OIT's efforts to correct operational deficiencies at the OIT Availability and Recovery Site.

Discussion Points (Cont'd)

- **Answer:**

OIT is in the process of drafting updates to Policy No. 14-31-NJOIT "Contingency Planning Policy." It details the specific requirements and defines procedures for developing a Disaster Recovery plan. The new procedures fully utilize Federal Emergency Management Agency (FEMA) and National Institute Standards and Technology (NIST) framework, a more formalized methodology for implementing and exercising agency recovery plans.

The previous Disaster Recovery methodology did not mandate the submission of a Business Impact Analysis (BIA) for Mission Essential (ME) systems, as part of the System Architect Review (SAR) process. OIT mandates the submission of the BIA, as specified in the revised SAR documentation. The revision dictates that ME systems must comply with the Disaster Recovery process which includes the completion of OIT's standardized Disaster Recovery Plan (DRP) and Exercise Template.

Currently, OIT's Disaster Recovery team manually monitors, tracks and coordinates the Executive Branch Disaster Recovery (DR) processes which includes not only the development of a Continuity of Operation Plan (COOP), but the implementation of the plan as well as performing regular DR exercises to test and refine the plan. While OIT's DR team is responsible for coordinating these efforts, generation of a Continuity of Operation Plan (COOP) is the responsibility of each agency.

OIT's DR team has provided subject matter expertise to aid in the creation of an agency COOP and provides leadership in DR plan execution including development of a Corrective Action Plan to remediate deficiencies identified during the exercise. In 2017 OIT's DR team conducted DR exercises with 3 agencies and assisted 4 in planning their event. There are 12 exercises being planned for 2018, including critical applications for the Department of Labor and Workforce Development, Motor Vehicle Commission and Law and Public Safety.

OIT continues to make investments at the State's purpose built Enterprise Class Data Centers to improve security, reliability and stability of the facility and the infrastructure. At the OIT Availability and Recovery Site (OARS) the installation of additional power distribution units (PDU) was completed in early 2018. To date, 90% of all appliances are now equipped with a secondary, redundant power distribution supply.

In the fall of 2017, the State of New Jersey entered into a publicly advertised cooperative purchasing agreement for Cloud Solutions. This contract allows for the purchase of infrastructure in the cloud. OIT continues to evaluate cloud offerings as an effective method to provide new services to our customers as well as expand the capabilities of those already in existence. The ability to provide DR in the cloud where appropriate is evaluated for feasibility and cost efficiency with each request received.

Attachment A

EO225 – Decentralization – Application Development Staff

<u>Agency</u>	<u>Number of FTE</u>
Department of Children and Families	12
Department of Human Services	36
Department of Transportation	12
Department of Law & Public Safety/State Police	10
DLPS - Juvenile Justice Commission	1
Department of Labor & Workforce Development	34
Motor Vehicle Commission	33
Department of Treasury	50
Total:	188

EO225 – Consolidation – Infrastructure Support Staff

<u>Agency</u>	<u>Number of FTE</u>
Parole Review Board	1
Department of Human Services	19
Department of Labor & Workforce Development	10
DLPS – Division of Gaming	2
Department of Children and Families	4

Discussion Points (Cont'd)

Department of Treasury	10
Department of Transportation	13
Department of Education	5
Department of Law & Public Safety	5
Department of Agriculture	2
Department of Community Affairs	1
Department of Health	9
Department of Corrections	3
Board of Public Utilities	1
Department of Banking & Insurance	4
Department of Environmental Protection	5
Department of Military & Veterans Affairs	1
Office of Administrative Law	1
Total:	96