GDOT Publications
Policies & Procedures

Policy: 8075-2- GDOT Data Management Strategy
Section: Database Standards
Office/Department: Office of IT Applications

Reports To: Division of Information Tech
Contact: 404-631-1000

PURPOSE

This document sets the IT Policy for Data management strategy for GDOT. A consistent view of data throughout the GDOT is vital to support its goals and objectives. It is necessary to foster a data management strategy that recognizes the data as an asset, and focuses on the creation of accurate and consistent data that can be integrated into and shared among the business applications and business processes. The purpose of GDOT's data management strategy is to provide data solution based on standardization and quality control for core reference data, which is the fundamental business data in GDOT. As part of the strategy, GDOT will implement data management standards, a data life-cycle governance process and best practices with guidelines.

SCOPE

This policy applies to all GDOT Offices and Districts. All users of GDOT information technology systems or data (employees, contractors, vendors, and other parties) are expected to understand and abide by the Policy.

RESPONSIBILITY

1. The IT Director/CIO retains authority for enforcement and monitoring of this policy.
2. The IT Director/CIO is responsible for designating a person to serve this function in case of absence or emergency.
3. The Administrator of the Office of IT Application is responsible for compliance with the policy, updates to the policy, monitoring, and enforcing the policy.
4. In the absence of the IT Application Administrator, the Assistant Administrator(s) of the Office of IT Application is (are) responsible for compliance with the policy and for reporting concerns to the IT Director/Chief Information Officer.

POLICY STATEMENTS

1. GDOT shall establish standards for data modeling practices to promote their effective use for application developments projects and facilitate common, interoperable representations and descriptions of data. It shall be established as part of a data management resource to more effectively manage data, database system resources, and data technology.
2. GDOT shall insure database integrity, high availability, optimum performance, data security and effective operations. All new application development projects are required to adhere to these standards. Existing production applications will adopt these standards as they are planned for upgrade or major modifications.
   a. Ensure that all system data is automatically backed up on a regular basis.
   b. Ensure that all of the agency's key systems are backed up as a complete system, through processes such as imaging, to enable the quick recovery of an entire system.
   c. Ensure that backups are properly protected via physical security or encryption when they are stored, as well as when they are moved across the network. This includes remote backups and cloud services.
   d. Ensure that all backups have at least one offline (i.e., not accessible via a network connection) backup destination.

Policy: 8075-2 - GDOT Data Management Strategy
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    e. Maintain an inventory of all sensitive information stored, processed, or transmitted by the agency's technology systems, including those located on-site or at a remote service provider.

    f. Remove sensitive data or systems not regularly accessed by the agency from the network. These systems shall only be used as stand-alone systems (disconnected from the network) by the business unit needing to occasionally use the system or completely virtualized and powered off until needed.

3. GDOT shall establish common, standards-based database conventions, and identify database types, access languages, protocols, and connectivity methods that enable database access.

4. GDOT shall establish a standard outlining the lists of database products and platforms that are permitted to use within the GDOT, and with this standard a technology life cycle classification document shall be prepared, which shall provide definitions for each of the Life-Cycle Classifications associated with database technology.

5. GDOT shall establish standards to ensure the capture and maintenance of meta-data (including GIS data) and its naming, and to establish minimum requirements for the specification and documentation of metadata for all GDOT systems development initiatives.

6. Standards shall be established to protect the confidentiality, integrity, and availability of data generated, accessed, modified, transmitted, stored or used by the GDOT, irrespective of the medium on which the data resides and regardless of format (such as in electronic, paper or other physical form). The purpose of this is to identify baseline classifications for data/information for which the GDOT is considered the owner.

7. A standard shall be established to address data governance and its management as it applies to databases and data exchange within and across GDOT and business systems. This shall include a routine process to manage data life-cycle composed of the following:

    a. Establishment of a data governing entity composed of IT and business units' personnel

    b. The role of the entity as the data is created or retired

    c. The role of the GDOT SDLC to reuse the existing data (by default project resource will look for data elements within the existing systems (data dictionary) before creating new data elements)

    d. Rules to create universal data models (use the redundant data entities from various existing legacy systems to build universal entity and use this for data exchange and future developments).

8. Establish best practices and guidelines, as needed, for:

    a. GDOT database management

    b. GDOT business intelligence

    c. Unstructured data

References:

None.

History:

annual review: 06/14/23;
new policy effective 09/01/09, published: 09/30/09