

Enterprise Data and Geospatial Governance Practice

NUMBER:
DGP-06

DATE ISSUED:
August 8, 2024

SUBJECT:

Designating Source Systems of Record and Authoritative Reporting Sources of Corporate Data

REFERENCES:

DD-120 – Enterprise Data Governance

PURPOSE:

The purpose of this document is to define the process of designating Source Systems of Record (SSOR) and Authoritative Reporting Sources (ARS) for Caltrans Corporate Data. This document will provide clear direction regarding what is required to designate the SSOR and ARS for specific data and what it means to be a SSOR or ARS.

BACKGROUND:

Caltrans Corporate Data is routinely maintained in enterprise databases. This data is frequently used across different business areas and replicated into multiple other databases creating duplicate data fields. Duplication of data fields can lead to confusion about which data source is authoritative, is inefficient, and can lead to misinformation from data being updated on different schedules. Designating the SSOR and ARS for corporate data maximizes consistency, quality, and performance.

DEFINITIONS:

Source System: A system in which the data are entered or updated but is not the recommended place to obtain the data.

Source System of Record (SSOR): Entity that has been designated as the single authoritative source for a given data element or set of elements.

Authoritative Reporting Source (ARS): Entity that has been designated as an authoritative source for reporting, analysis or visualization for a given collection of data.

Corporate Data: Data assets that have been prioritized for data governance based on their value to Caltrans and its customers and stakeholders, and where lack of attention to data standardization, documentation, quality management and coordination introduces inefficiencies and risks for the agency.

Data Element: A particular field in a dataset.

RESOURCES:

Corporate Data - <https://datagovernance.onramp.dot.ca.gov/corporate-data>

DDP-3 Corporate Data List - <https://datagovernance.onramp.dot.ca.gov/data-documentation-package-and-templates>

Stewardship Roles and Responsibilities - <https://datagovernance.onramp.dot.ca.gov/ctdata-structure-and-roles>

PRACTICE:

All SSOR and ARS must contain data elements that meet the definition of Corporate Data.

Corporate Data List (DDP-3) entries must be completed for each data element which has a corresponding SSOR or ARS. There should be a reasonable effort to capture all source systems which contain the same data elements as the SSOR and ARS, representing that information in DDP-3. The completed DDP-3 must be submitted to the

Geospatial Data Officer for review by the Enterprise Data Steward Committee and approved by the Enterprise Data and Geospatial Governance Board (Board). Once approved, the information must be posted to the CTDATA webpage.

All SSOR and ARS must have:

1. At least one designated Business Data Steward.
2. At least one designated Data Custodian.
3. Completed and maintained metadata.
4. Completed and maintained data dictionary.
5. Completed and maintained data quality management plan.

No other system or dataset should replicate the specific data elements through hand entry or other means.

The process for designating source systems of record and authoritative reporting systems is diagrammed in Attachment A.

TIME FRAME:

This practice document shall take effect immediately. Enterprise applications, corporate datasets, their derivative works, and all reports should leverage the appropriate SSOR or ARS for use of any of the data elements covered by this Practice document.

Board approved DDP-3 lists must be posted within 10 working days of approval with notices sent out to all Enterprise Data Stewards and District Enterprise Data Governance Liaisons.

Once a DDP-3 submittal is approved and posted, SSOR have 30-days to complete and make available, either through the Corporate Data Catalog application or in another agreed upon central location their data dictionary, metadata, and data quality management plan documents for the items listed.

Once a DDP-3 submittal is approved and posted, ARS must complete and make available, either through the Corporate Data Catalog application or in another agreed upon central location, the data dictionary, metadata, and a data quality management plan documents for the data extraction, transformation, and loading before making the data elements in the approved DDP-3 available for use by staff. If the data is already available via the ARS, then the ARS has 30-days to become compliant.

If a business area is unable to meet any of the time frames listed above, a request may be made to the Geospatial Data Officer for approval of a time extension.

IMPLEMENTATION:

New Systems or Reports

All new applications, systems, databases, datasets, and reports using the data elements identified in the Corporate Data List published to the CTDATA intranet website must obtain those data elements from the appropriate SSOR or ARS.

All new reports must use the presentation data element names for the data elements in the approved DDP-3.

Existing Systems or Reports

Implementation of this Practice Document may result in impacts to existing systems requiring funding allocations to modify them to directly use data from the SSOR or ARS. Changes may be required to data formats and table structures, connections between systems, and the formatting of reports created from systems that are modified. In addition, there will likely be opposition to change due to past investments and familiarity that will have to be

overcome. The long-term benefits of using a single authoritative source of data outweighs the short-term implementation costs of this Practice document.

Implementation of the Practice document will consist of the following tasks:

1. Identification and remediation of existing applications, systems, and databases to pull data from their designated SSOR or ARS.
2. Identification and remediation of existing reports to pull data from their designated SSOR or ARS.
3. Identification and remediation of existing reports to update headings to use the approved presentation data element names.
4. Identification and remediation of Caltrans manuals, guidance and other documentation that is inconsistent with this Practice document.

ROLES AND RESPONSIBILITIES:

Enterprise Data Stewards and District Enterprise Data Governance Liaisons shall work to ensure future applications, systems, databases, and reports are using the SSOR or ARS for the data elements covered by this Practice document.

Enterprise Data Stewards, District Enterprise Data Governance Liaisons, Business Data Stewards, Data Custodians, and other identified staff shall assist with efforts to modify their standard operating procedures and update their systems to utilize appropriate SSOR or ARS.

Division Chiefs and Deputy District Directors shall, where applicable, direct and support staff to develop and implement workplans for migrating from non-authoritative sources and instead utilize the identified SSOR or ARS.

APPROVAL:

 Digitally signed by Chad Baker
Date: 2024.08.08 12:51:23 -07'00'

Date: August 8, 2024

Chair, Enterprise Data and Geospatial Governance Board or Designee
California Department of Transportation