



ESTABLISH AND GOVERN SINGLE SOURCE OF TRUTH (SSOT) PROTOCOL

Document Title:	Establish and Govern Single Source of Truth (SSOT) Protocol		
Document Ref. Number:	DoH/PROTOCOL/DDGH/IRDP/V1/2025	Version:	V1
New / Revised:	New		
Publication Date:	November, 2025		
Effective Date:	April, 2026		
Document Control:	Strategic Affairs Sector		
Applies To:	All DoH Offices, Centers, Sectors & Organization Units, Abu Dhabi Healthcare Ecosystem		
Owner:	Data & Digital Governance Office		
Revision Date:	November, 2028		
Revision Period:	Every three years		
Contact:	DDG@doh.gov.ae		

1. Protocol Purpose and Brief

The purpose of the Establishing and Govern SSOT Protocol is to identify and validate a Single Source of Truth (SSOT) of data attribute. This protocol ensures that data is analyzed and identified for its origin and usage across systems. It checks for any existing SSOT to avoid duplication and assigns an SSOT owner responsible for its governance. Finally, the SSOT is reviewed for approval and added to the SSOT register.

This protocol is implemented in conjunction with DoH Reference and Master Data Standard. This is relevant for organizations that aim to create a Single Source of Truth (SSOT), ensuring that their data is consistent, accurate, and accessible from a central repository.

2. Definitions and Abbreviations

No.	Term / Abbreviation	Definition
2.1	Data Attribute	A specific piece of information that characterizes an entity or object in a dataset, typically representing a column in a table.
2.2	Data Governance Head	The individual responsible for overseeing the data governance framework, ensuring data management practices align with organizational policies and objectives.
2.3	Data Governance Specialist	A professional responsible for implementing and overseeing data governance policies, ensuring data quality, compliance, and proper management of data assets across the organization.
2.4	Data Lineage	The path that data follows from its origin through all the systems and processes it touches, including any transformations applied along the way.
2.5	Data Steward	The individual responsible for managing and overseeing data usage and integrity within specific data domains, assisting Data Owners in resolving data-related issues.
2.6	Key Performance Indicator (KPI)	A measurable value that reflects how well something is performing compared to a set objective.
2.7	RACI (Responsible, Accountable, Consulted, Informed)	A matrix used to define and clarify roles and responsibilities ensuring clear accountability for tasks or decisions.
2.8	Service Level Agreements (SLA)	A formal document that outlines the expectations between a service provider and the beneficiary.
2.9	Single Source of Truth (SSOT)	A concept in data management where a single, authoritative dataset is used as the definitive source for a specific type of information, ensuring consistency and accuracy across all systems and entities that rely on that data.

3. Recommended Protocol

Starting Point

Step 1: Identify the need to create SSOT for a particular dataset

The process begins by identifying the need to create SSOT for a particular dataset. This could be triggered by inconsistencies across multiple systems, unclear data definitions, or the need to unify the data used across various organizational areas. A Data Governance Specialist is responsible for identifying and initiating the centralization of data.

Step 2: Identify the difference sources of the chosen dataset

A Data Governance Specialist in collaboration with other relevant stakeholders must identify the datasets in the different systems that represent the same domain and must be aggregated to a single dataset.

Step 3: Analyze each dataset separately

Next, each dataset is analyzed to understand its current structure, usage, and quality. This analysis helps to determine whether the data is complete, accurate, and up to date. The Data Steward conducts the analysis, identifying any gaps in the data.

Step 4: Standardize and normalize data attributes in each dataset

Next, once each dataset is analyzed, the Data Steward starts with the following steps:

1. Clean the data by removing inconsistencies, errors, or invalid entries.
2. Normalize data attributes (e.g., ensure dates are in a uniform format)
3. Enforce naming conventions and use reference data (e.g., country codes) to standardize values.

The Data Steward must respect the following criteria:

- Data fields (such as name, address, phone number) must have a consistent format.
- Normalize data using common standards (e.g., phone numbers, addresses, etc.).

Step 5: Establish matching rules for data merging and de-duplication

The Data Governance Specialist must oversee the establishment of matching rules for each key attribute in different datasets. This is in the purpose of applying matching rules to identify records that represent the same entity across sources.

In addition, the Data Governance Specialist must oversee the decisions on matching criteria for each attribute (exact matching, fuzzy matching, probabilistic matching etc..).

Thresholds for match confidence should be established as well (e.g. 85% confidence for a match to be merged).

Step 6: Apply matching rules for data merging and re-duplication

The Data Steward must develop and apply the established matching rules and use the corresponding algorithms to apply the matching and merging. Then, he must Flag potential duplicates based on matching scores, and either merge automatically (for high-confidence matches) or route for manual review (low-confidence cases).

Step 7: Is there any conflict remaining after applying matching rules?

At this point, the Data Steward checks whether there is other conflicts that remain and some records that couldn't be merged.

Yes: Proceed to Step 8 to establish data conflict resolution rules

No: Proceed to Step 13 to update the SSOT Register with the clean dataset

Step 8: Establish data conflict resolution rules based on automated business rules

The Data Governance Specialist must establish rules for conflict resolution (e.g., choose the newest, most frequent, or most authoritative record, most credible dataset).

The Data Governance Specialist must determine which source is more authoritative based on rules like:

- Recency: The latest data takes precedence.
- Completeness: The most complete record is preferred.
- Source reliability: A more reliable system (e.g., Shafafiya) may take precedence over less reliable sources depending on the dataset and the business knowledge of the Data Governance Specialist depending on historical trends

Step 9: Apply data conflict resolution rules based on automated business rules

The Data Steward must develop and apply rules to generate a unified record.

Step 10: Is there any conflict remaining after applying automated business rules?

At this point, the Data Steward checks whether there is other conflicts that remain and some records that couldn't be merged.

Yes: Proceed to Step 8 to resolve remaining data conflicts by manual reviewing them.

No: Proceed to Step 13 to update the SSOT Register with the clean dataset

Step 11: Resolve remaining data conflicts by manual review

If conflicts cannot be resolved automatically, the Data Governance Specialist must review them manually.

Step 12: Are all conflicts resolved?

At this point, Data Governance Specialist checks whether there are no conflicts left in the merged dataset.

Yes: Proceed to 13 to update the SSOT Register with the clean dataset

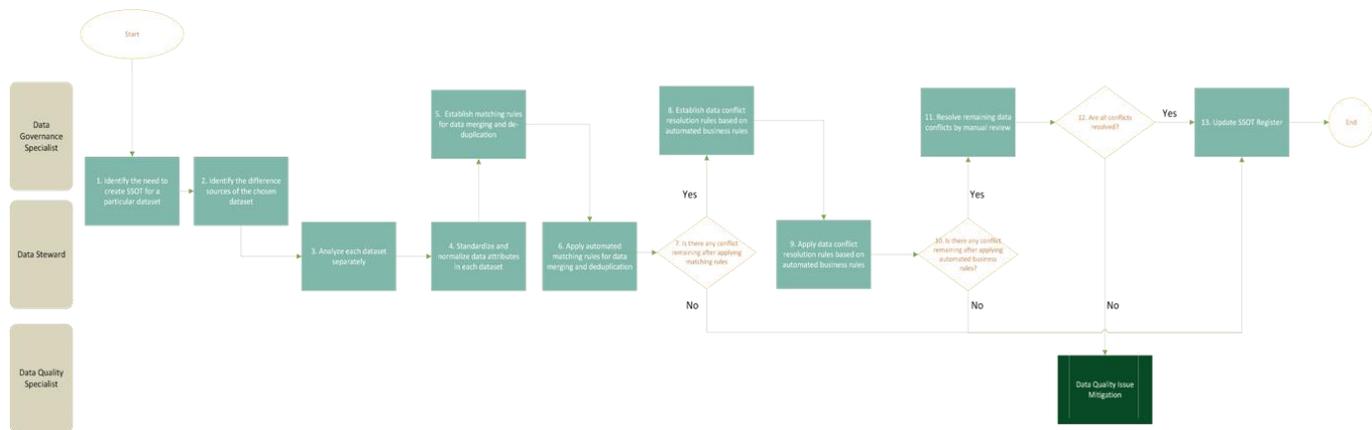
*No: Proceed to applying the **Data Quality Issue Mitigation Protocol** by the **Data Quality Specialist***

Step 13: Update SSOT Register

Once the SSOT is ready, it is added to the official SSOT register. This register serves as a centralized record of all authoritative data sources within the entity. It ensures transparency and allows stakeholders or systems to reference the approved SSOT. The Data Governance Specialist updates the register, recording the newly approved SSOT for future use.

End of Process

Process (Illustration):



Service Level Agreement (SLA)

#	Process Step	SLA (Business Days)
1	Identify the need to create SSOT for a particular dataset	0.5 Business Days
2	Identify the difference sources of the chosen dataset	0.5 Business Days
3	Analyze each dataset separately	2 Business Days
4	Standardize and normalize data attributes in each dataset	2 Business Days
5	Establish matching rules for data merging and de-duplication	0.5 Business Days
6	Apply automated matching rules for data merging and de-duplication	1 Business Days
7	Establish data conflict resolution rules based on automated business rules	2 Business Days
8	Apply data conflict resolution rules based on automated business rules	2 Business Days
9	Resolve remaining data conflicts by manual review	2 Business Days
10	Update SSOT Register	0.5 Business Day

KPIs

#	KPI	Description	Calculation	Frequency	Threshold
1	Validation accuracy of SSOT candidate	Measures how accurately SSOT candidates are validated	$(\text{Number of valid SSOTs} / \text{Total SSOTs validated}) * 100$	Monthly	≥ 95%

4.Key stakeholder Roles and Responsibilities

RACI

#	Process Step	Data Governance Specialist	Data Steward	Data Quality Specialist
1	Identify the need to create SSOT for a particular dataset	R, A	I	
2	Identify the difference sources of the chosen dataset	R, A	C	
3	Analyze each dataset separately	I	R,A	
4	Standardize and normalize data attributes in each dataset	I	R,A	
5	Establish matching rules for data merging and de-duplication	R, A	I	
6	Apply automated matching rules for data merging and de-duplication	I	R,A	
7	Establish data conflict resolution rules based on automated business rules	R, A	I	
8	Apply data conflict resolution rules based on automated business rules	I	R, A	
9	Resolve remaining data conflicts by manual review	R,C		
10	Update SSOT Register	R, A		
Sub-process	Apply Data Quality Issue Mitigation Protocol	I		R,A

R – Responsible, A – Accountable, C – Consulted, I – Informed

5.Relevant Reference Documents

No.	Reference Date	Reference Name	Relation Explanation / Coding / Publication Links
1.	2025	Reference and Master Data Standard	https://www.doh.gov.ae/en/resources/standards
2.	2025	Data Quality Issue Mitigation Protocol	https://www.doh.gov.ae/en/resources/standards