TSDS ODS Upgrade Training
6611 Boeing – Paso Del Norte 2

Presented by Joel Molina, Ivonne Munoz, and Nancy Cruz

Meeting Agenda – June 13, 2024

Time	Session
8:30 - 9:00	Welcome and Introductions
9:00 - 9:30	State of the Upgrade
9:30 - 10:00	TSDS Upgrade Project Overview and Key Concepts
10:00 - 10:15	**Break**
10:15 – 10:30	TSDS Overview and Key Concepts (Continued)
10:30 - 10:45	TEDS Overview
11:30 - 1:00	**Lunch**
1:00 – 1:45	TSDS Upgrade Project LEA TEAL Roles and Privileges
1:45 – 2:15	TSDS Upgrade Project Level 1.5 Filters
2:15 - 2:30	**Break**
2:30 – 3:00	TSDS Upgrade Project Level 2 (L2) Validations
3:00 – 3:30	TSDS Upgrade Project Security Management in the DMC
3:30 – 4:00	TSDS Upgrade Project Descriptor Mapping in the DMC
4:00 - 4:30	Questions
4:30	**End of Day**



TSDS UPGRADE PROJECT

Overview and Key Concepts

KEY TERMS

Application Program Interface (API)
Data Management Center (DMC)
Individual Operational Data Store (IODS)
Landing Zone (LZ)

You can find the definitions to these key terms and more here:

Link to Key Term Document

LEARNING OBJECTIVES

By the end of this course, the learner will be able to explain:

- The impacted components of the TSDS Upgrade Project.
- The key changes to how data will be loaded.
- Where the validations and filters will be executed and viewed.

WHY IS THIS COURSE IMPORTANT

- To provide a foundation of knowledge and understanding for the upcoming TSDS Upgrade Project training.
- To ensure that you can effectively teach these key concepts to the LEAs to prepare them as we Go-Live.

COURSE AGENDA

GETTING STARTED
High Level Architecture

Key Concepts
Data Loading, Promotion, Validation, Load Summary

Training Activity
Demo and Knowledge Checks

WRAP-UP
Key Takeaways, Resources, and Next Steps



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GETTING STARTED

High Level Architecture

WHAT IS EXPECTED TO CHANGE?

CURRENT TSDS

- eScholar Data Manager (eDM)
- Data loaded via XML
- Delete Utility
- Validation Tool, File Manager, and Batch Manager
- Most validations downstream

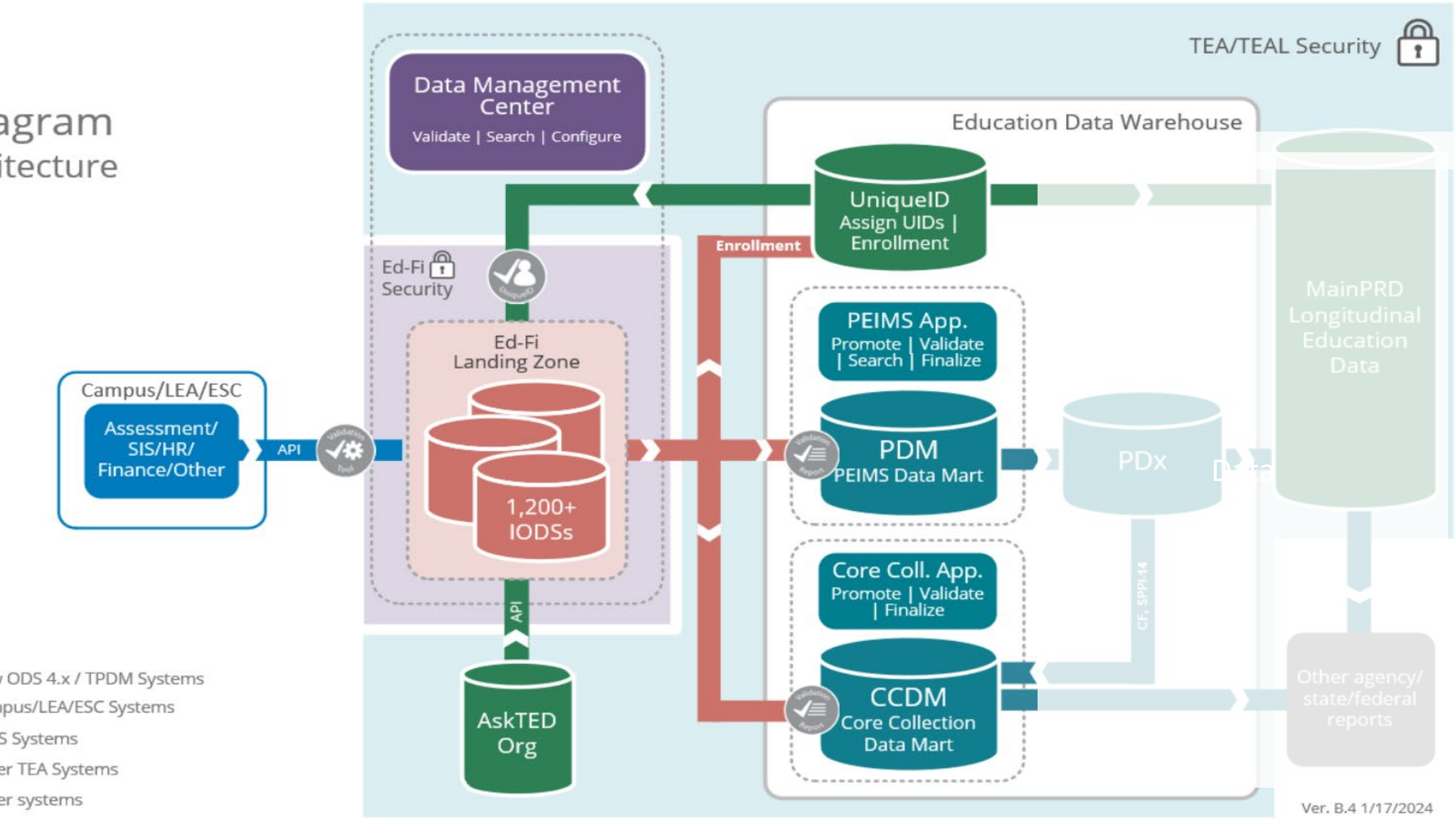
TSDS UPGRADE

- Data Management Center (DMC)
- Data loaded via Application Programming Interface (API)
- Deletes and updates processed through API transactions
- More validations at local level
  - Level 1 Validations, Level 1.5 Filters, and Level 2 Validations
- Fewer downstream-only* validations
  - Level 2 Validations (95%) and
  - Level 3 Validations (5%)*

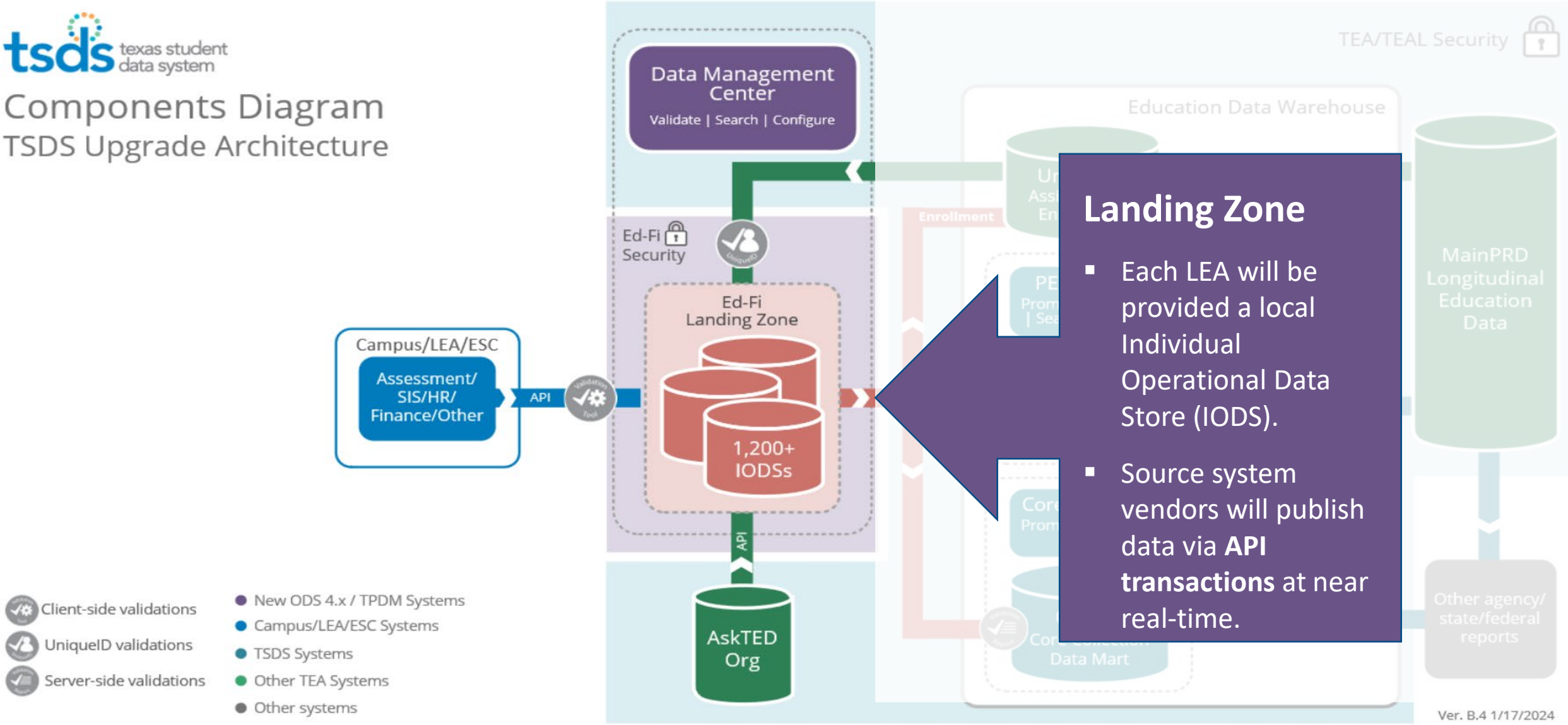
HIGH-LEVEL ARCHITECTURE

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Components Diagram
TSDS Upgrade Architecture



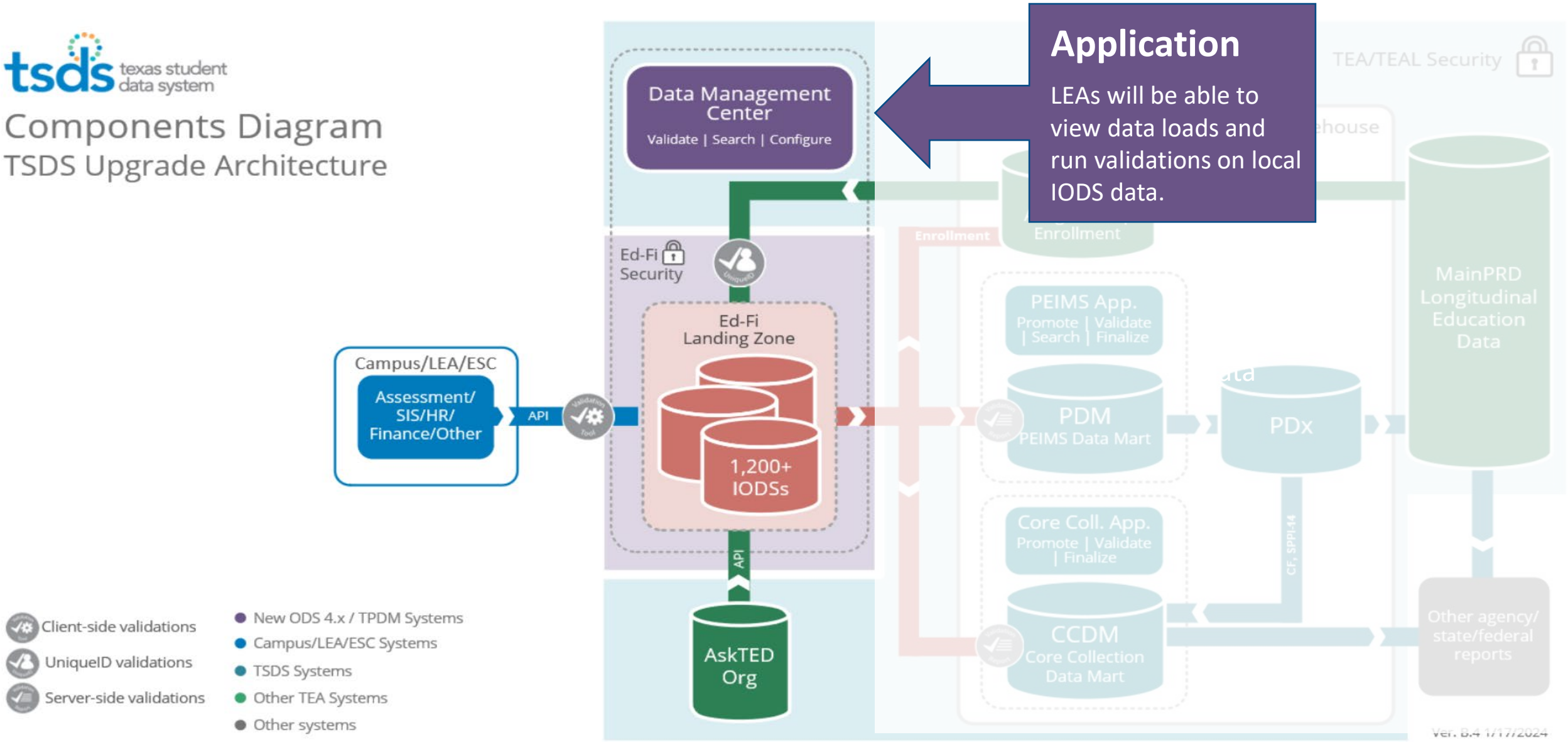
HIGH-LEVEL ARCHITECTURE



Landing Zone

- Each LEA will be provided a local Individual Operational Data Store (IODS).
- Source system vendors will publish data via **API transactions** at near real-time.

HIGH-LEVEL ARCHITECTURE



HIGH-LEVEL ARCHITECTURE

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Components Diagram
TSDS Upgrade Architecture

Unique-ID

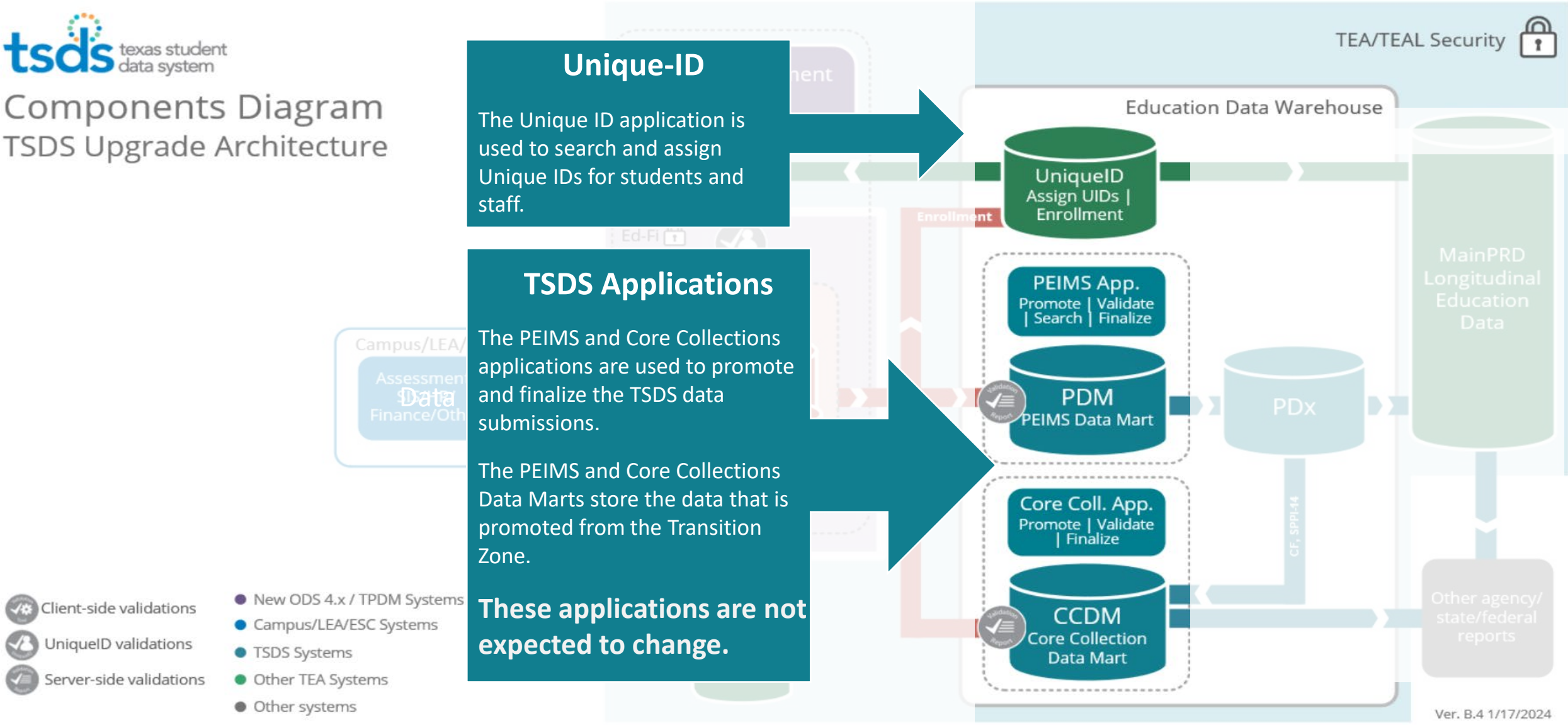
The Unique ID application is used to search and assign Unique IDs for students and staff.

TSDS Applications

The PEIMS and Core Collections applications are used to promote and finalize the TSDS data submissions.

The PEIMS and Core Collections Data Marts store the data that is promoted from the Transition Zone.

These applications are not expected to change.





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KEY CONCEPTS

Data Loading, Promotion, and Validation

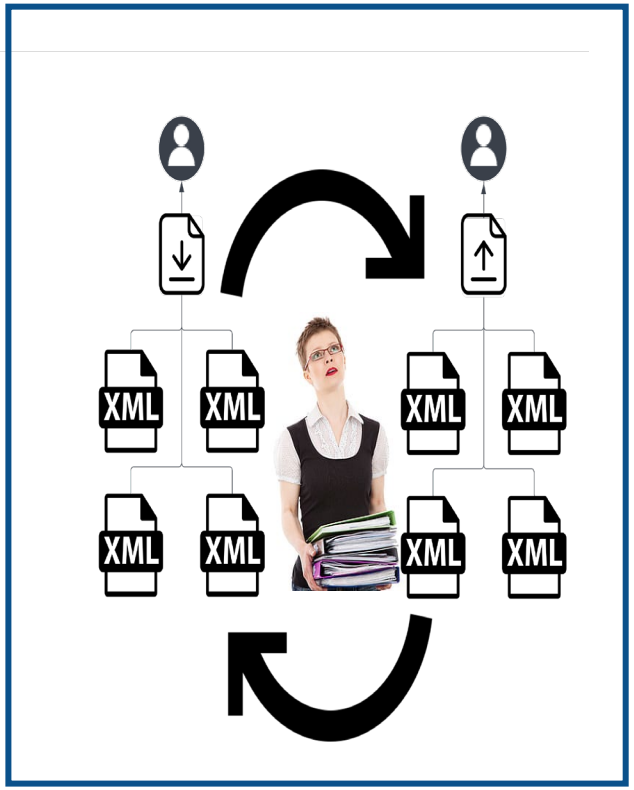
KEY CHANGES TO DATA LOADING

In the TSDS Upgrade Project:

- There is no need for extracting and loading XML files.
- There is one stream of singular transactional data published from the local source systems into the IODS at near-real time via API transactions.
- Data is seamlessly updated in the IODS to reflect updates and corrections the LEA makes in their local source systems.

CHANGES TO DATA LOADING PROCESS

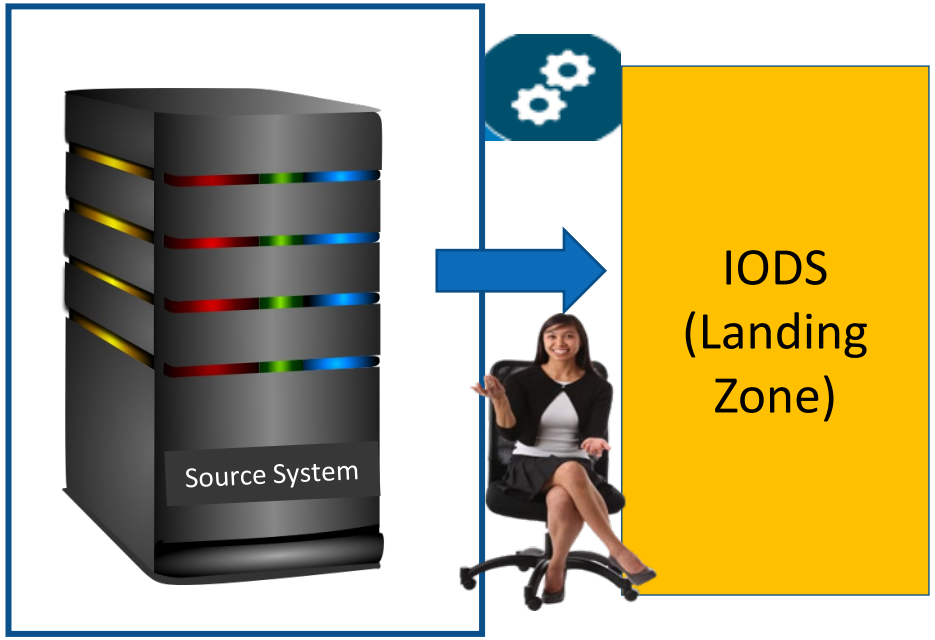
Currently XML files are <u>manually</u> extracted and loaded.



Current ODS

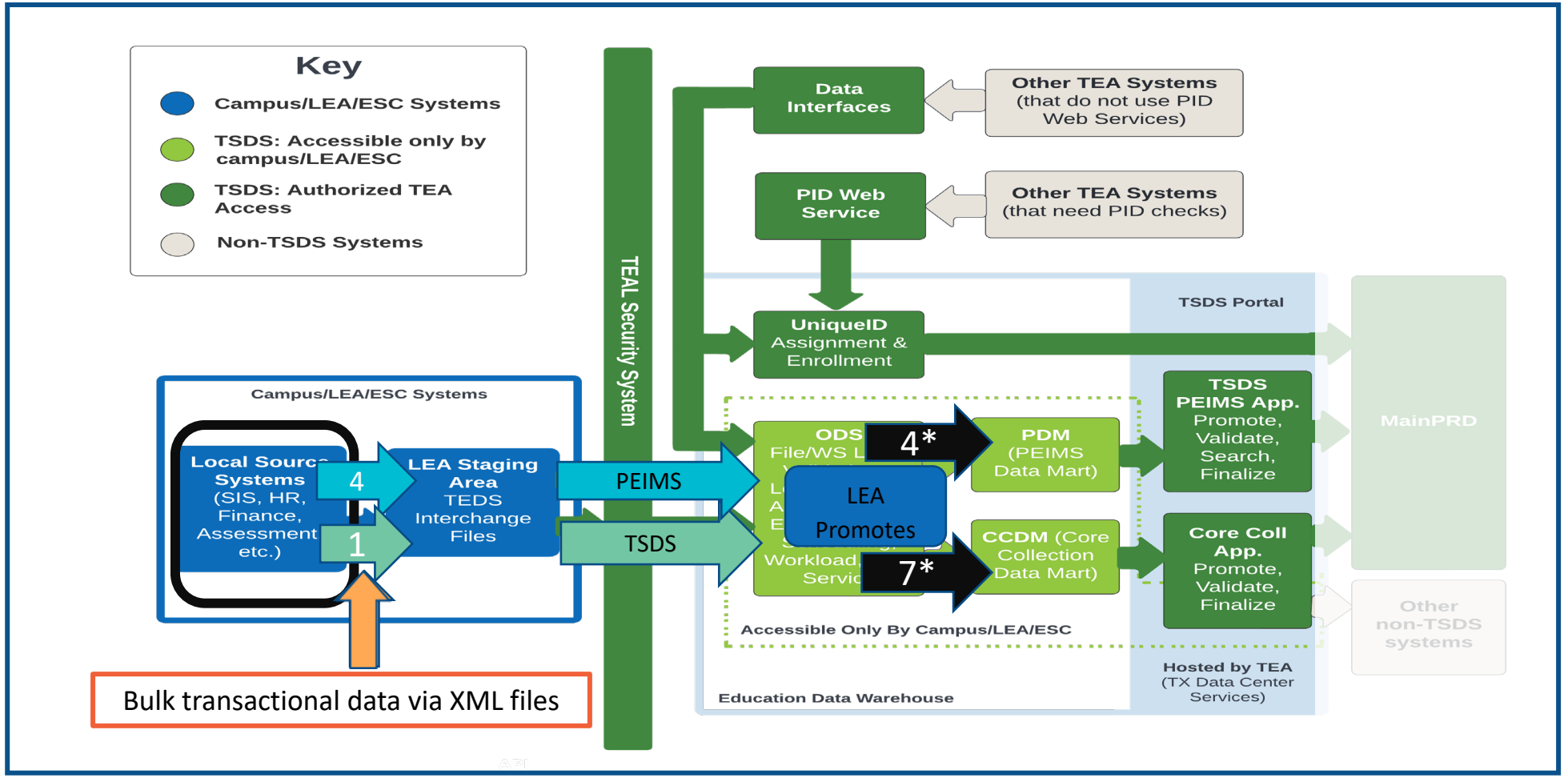
LEAs currently bulk load their data through XML files into the eDM.

After the upgrade, data will be <u>automatically</u> loaded via API transactions.



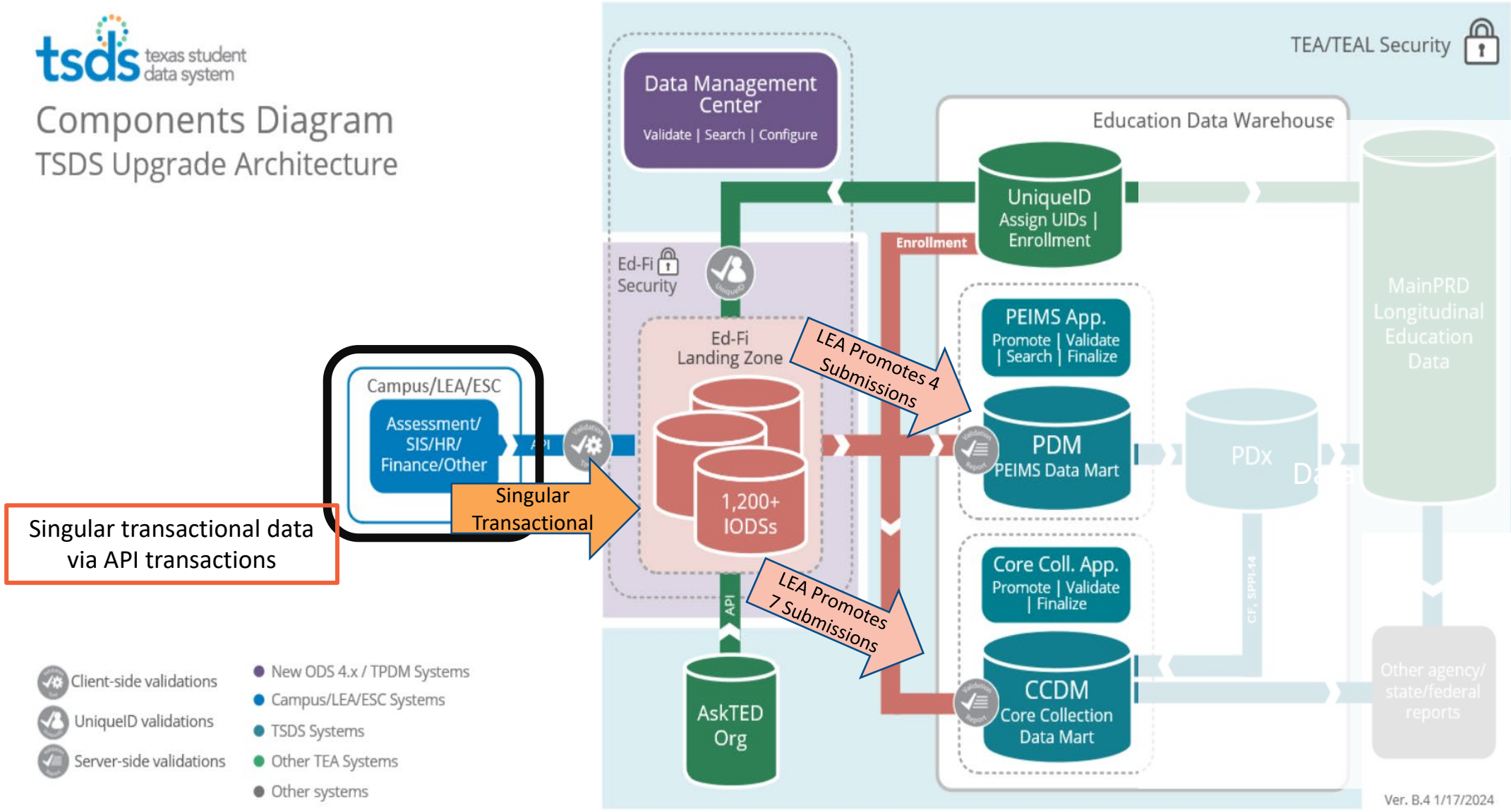
The vendors will publish the singular transactional data from the local source systems to the LEA's IODS via API transactions.

HOW DATA IS CURRENTLY LOADED



*4 and 7 refer to the number of individual collections for PEIMS and Core

HOW DATA WILL BE LOADED



HOW DATA WILL BE PROMOTED

- The data submission deadlines will not change.
- Data promotions in TSDS will continue to be a manual process.
- Promotion logic and data field effective dates (i.e., begin/end dates) will be used to determine which data should be promoted for each collection and submission.

BEGIN AND END DATES

In order to “effective date” some data elements, TEA will collect **Begin Dates** and **End Dates**. The TSDS system will determine for which collections and submissions date-sensitive data will be promoted based on the begin and end dates.

Begin date is the first instructional day upon which something is considered to take effect.

End date is the day after the last instructional day when something is considered to no longer be in effect.

Some data fields will require that the begin/end dates be updated yearly. i.e., Homeless Status

Other data fields do not require an end date unless the status changes. i.e., Emergent Bilingual Indicator

GENERAL PROMOTION LOGIC

TEA is developing promotion logic to promote data for the different data submissions that is not date specific.

- For PEIMS Summer, we collect attendance data for all students and the general promotion logic is to promote all students who are enrolled and in membership at any time during the school year.
- For Residential Facility Tracker, the general promotion logic is to promote the data for students who are enrolled AND are receiving special education services AND reside in a residential facility at any time during the school year.

BEGIN/END DATE EXAMPLE

How the begin and end dates can affect the data that is reported for different data collections.

- Mr. Smith is hired as an Educational Aide beginning on August 30. His StaffClassification is 033 with a **BeginDate** of **YYYY-08-30**.
- On November 10, Mr. Smith is promoted to teacher (087) with a **BeginDate** of **YYYY-11-10.**
- Mr. Smith's StaffClassification record will have these entries:
  - 033 BeginDate YYYY-08-30
  - 033 EndDate YYYY-11-09
  - 087 BeginDate YYYY-11-10

BEGIN/END DATE EXAMPLE (continued)

How the begin and end dates will affect the data that is reported for Mr. Smith on PEIMS Fall and on Class Roster.

- Mr. Smith is reported on the **PEIMS Fall** Submission as an **033** (Educational Aide) since that was his StaffClassification on the **PEIMS Fall snapshot** which is the last Friday in October.
  - 033 BeginDate YYYY-08-30
  - 033 EndDate YYYY-11-09
- Mr. Smith was promoted to a teacher (087) effective November 10. He would be reported on the **Class Roster** (CR) **Submission** as an **087**. The Class Roster snapshot date is the last Friday in February.
  - 087 BeginDate YYYY-11-10

LEVELS OF VALIDATIONS

LEVEL 1

(Vendor Source System)

Includes basic data integrity checks that occur during the process of loading data via API transactions into the Individual Operational Data Store (IODS) in the Landing Zone. Data that fails Level 1 validations does not enter the IODS.

Prevents data from loading to IODS

LEVEL 1.5

(DMC: DMC Data Monitor)

Includes filters that prevent invalid or non-TSDS data from being loaded into TSDS. These filters include Unique ID checks, descriptor value checks, Do Not Report flag checks, and Course ID checks.

Prevents data from loading to Transition Zone

LEVEL 2

(DMC: DMC L2 Validations)

Business rules that are executed on the data destined for TSDS. Fatal, Special Warning, and Warning validation errors do not prevent data from being loaded to TSDS.

Does not prevent loading to TSDS.

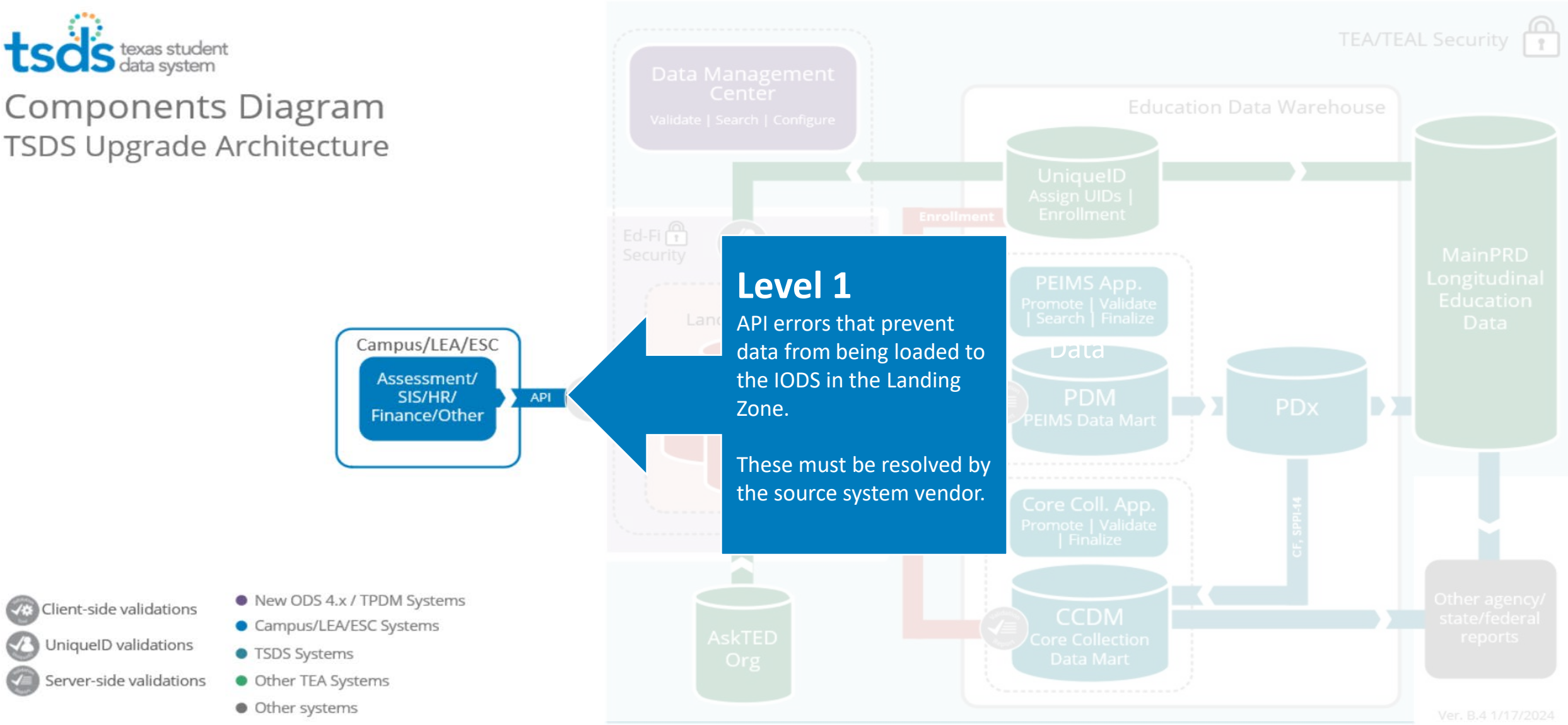
LEVEL 3

(PEIMS/Core: Existing TEAL Roles)

Business rules that are executed in TSDS. Level 3 validations contain all Level 2 validations, plus any additional validations required for the TSDS submissions. Fatal errors prevent TSDS submissions from being completed or finalized.

Fatals prevent from completing submission

LEVEL 1 VALIDATIONS



LEVEL 1 VALIDATION EXAMPLES

1. { "message": "Authorization denied. The claim does not have any established relationships with the requested resource."}
   - This would be an issue with the claim set being used. The API is trying to access something it does not have access to.

2. Response from ODS: Unable to resolve value 'uri://tea.texas.gov/ibcVendorDescriptor#490' to an existing 'IBCVendorDescriptor' resource.
   - This type of error could come up for a non-valid descriptor value being supplied, indicating that a descriptor value is not defined in the namespace sent.

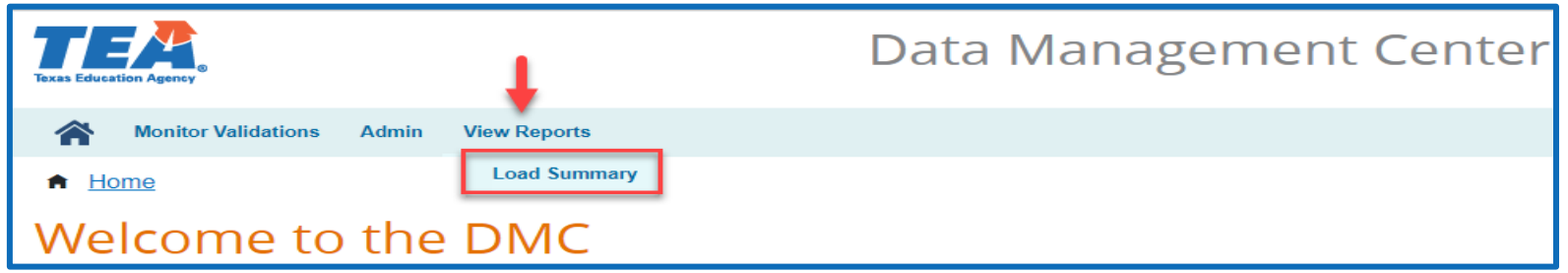
3. "Access to the resource could not be authorized. Are you missing a claim? This resource can be authorized by the following claims:”
   - This type or error could come up when the claim set being used is not granting access to the resource they're trying to publish to.

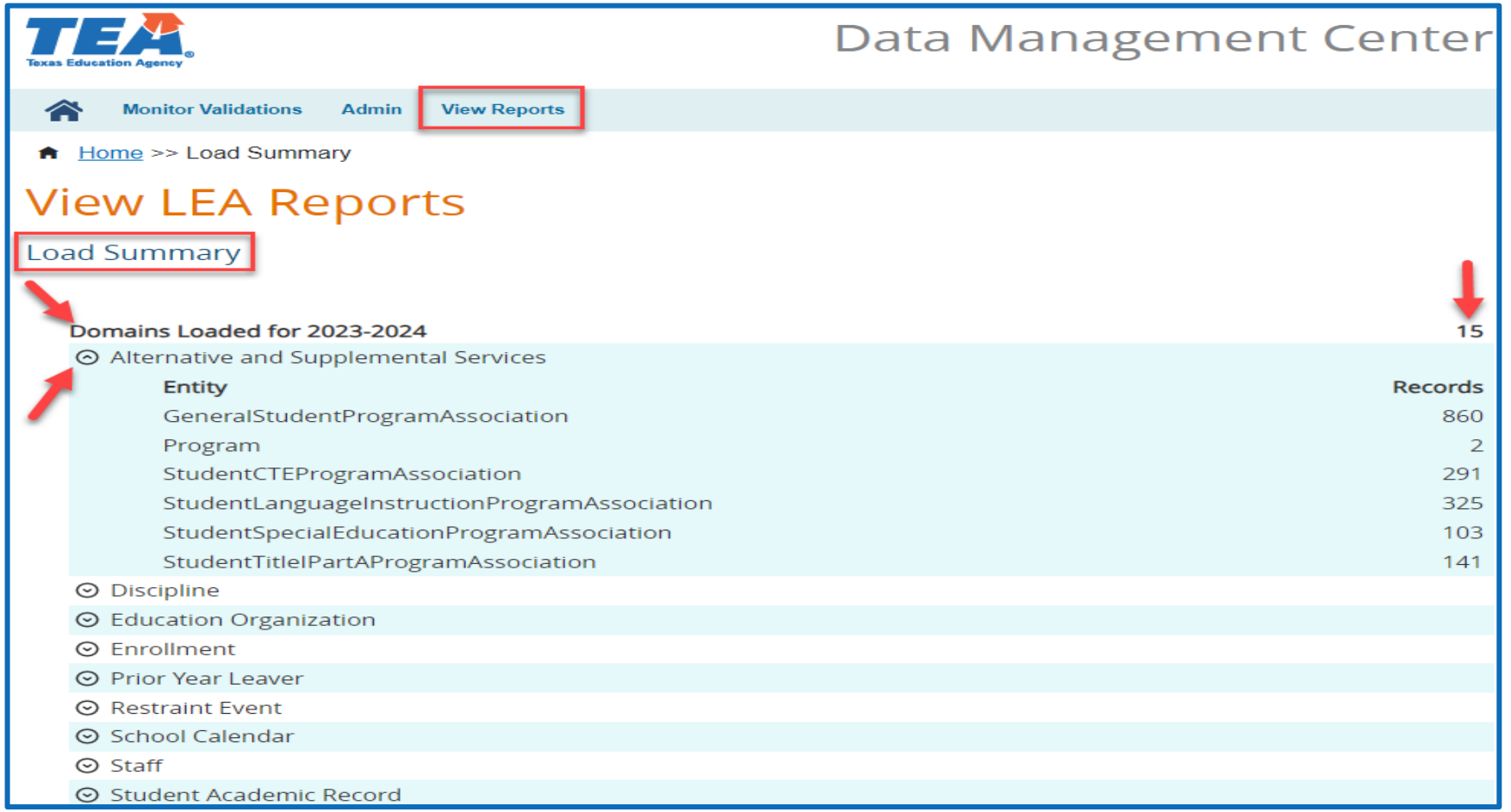
LOAD SUMMARY REPORT

- **LOAD SUMMARY REPORTING IN DMC:**
  - Reports are available at both the LEA and ESC levels.
  - The report displays:
    - The number of **Domains loaded**, as well as a record **count** for each **Entity** within each Domain.
    - The ESC-level report separates LEAs with data loaded from those without any data loaded, allowing for **improved monitoring** of LEA activity.

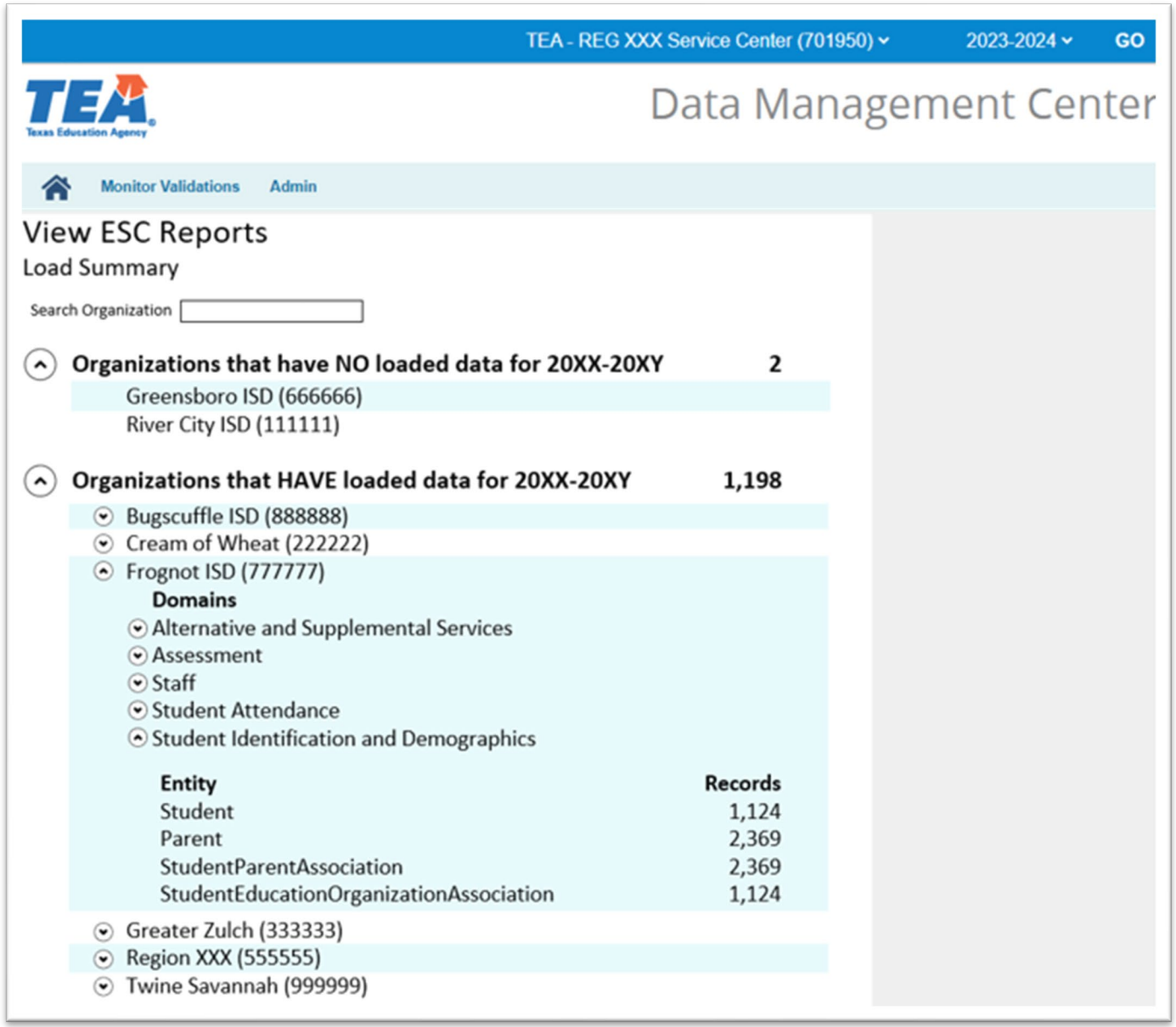
- **TEAL Access Needed**:
  - Role(s): DMC LEA Data Monitor / DMC ESC Data Monitor
  - Privilege: DMC Summary Access to LEA Data

LOAD SUMMARY REPORT – LEA

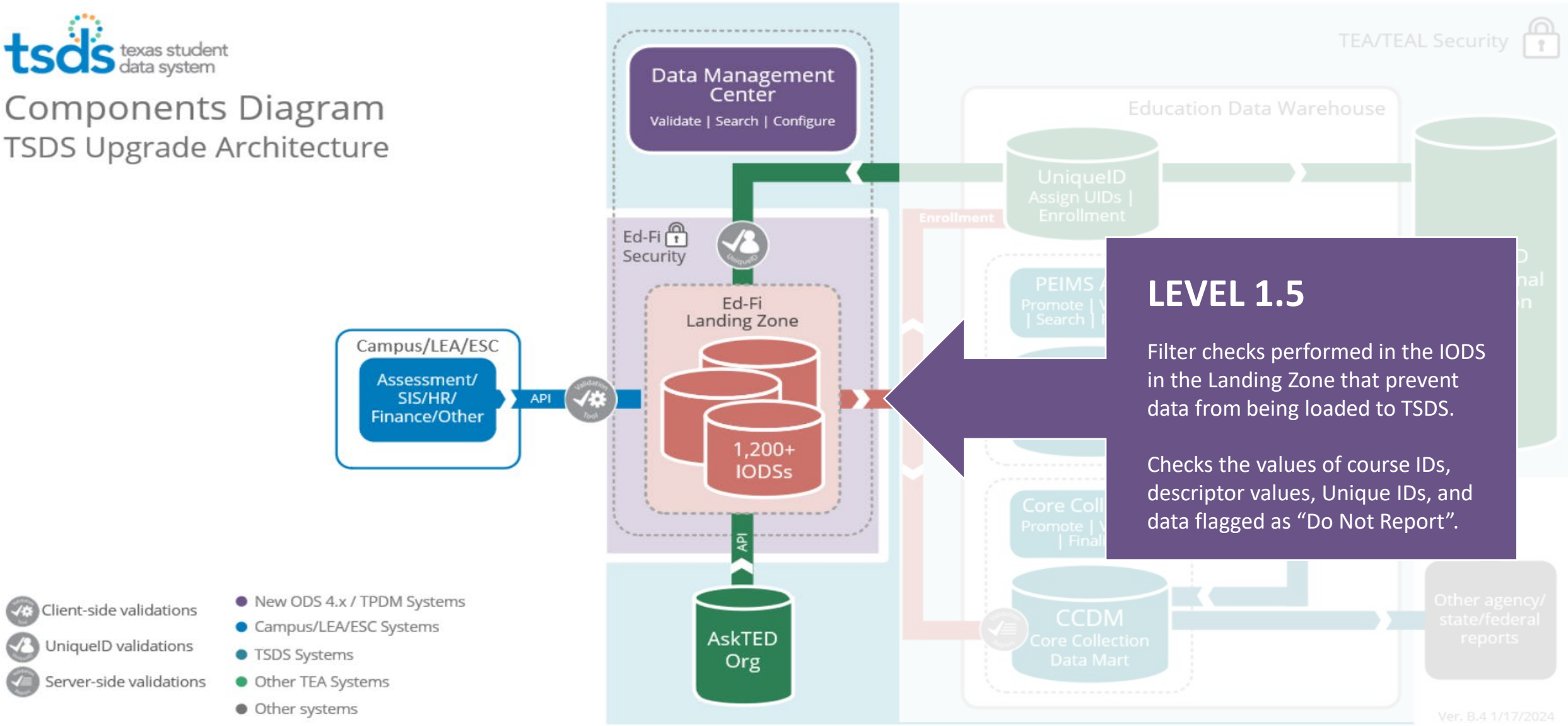




LOAD SUMMARY REPORT – ESC



LEVEL 1.5 FILTERS

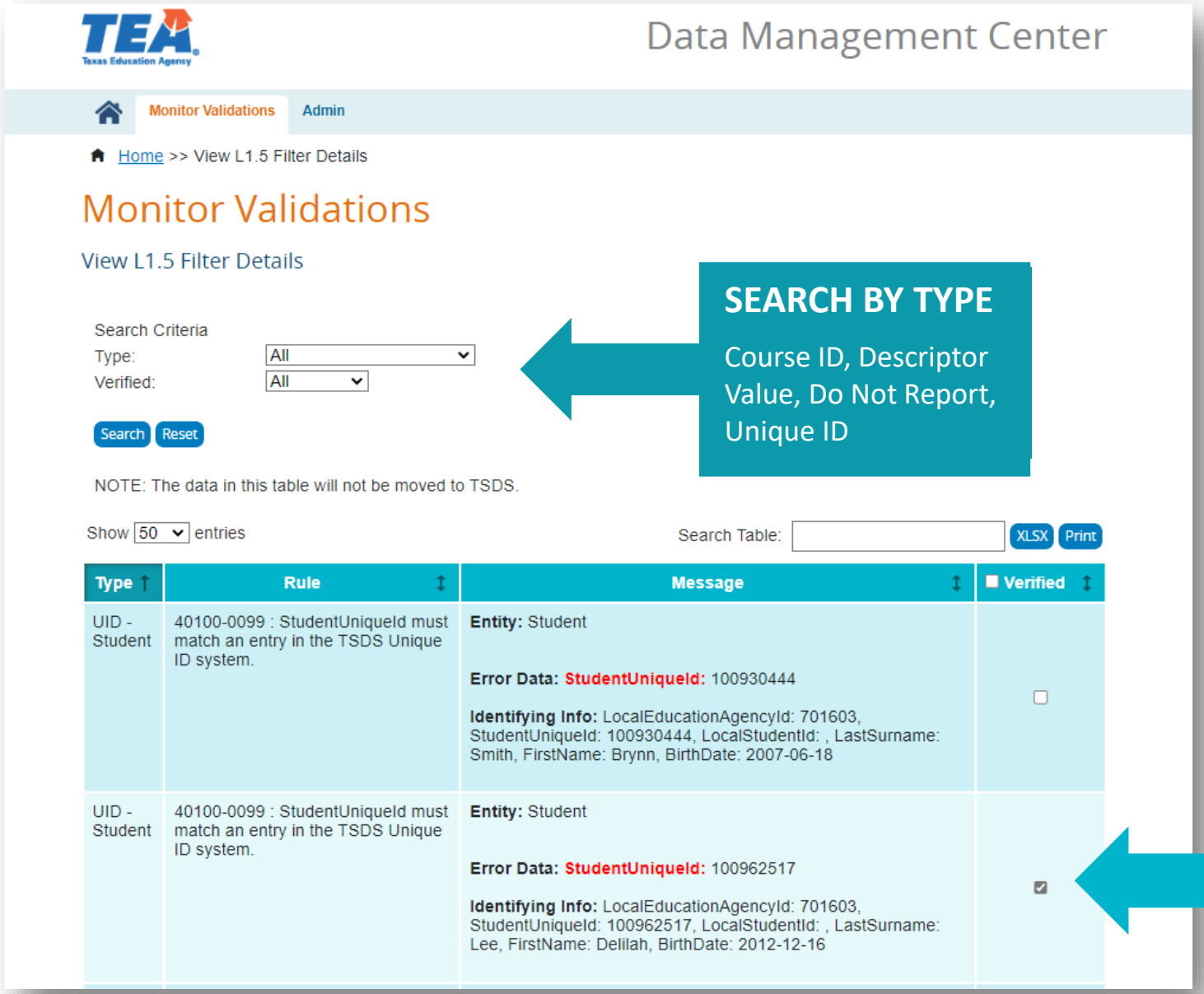


LEVEL 1.5

Filter checks performed in the IODS in the Landing Zone that prevent data from being loaded to TSDS.

Checks the values of course IDs, descriptor values, Unique IDs, and data flagged as “Do Not Report”.

LEVEL 1.5 FILTER EXAMPLES



SEARCH BY TYPE

Course ID, Descriptor Value, Do Not Report, Unique ID

TEAL ROLE

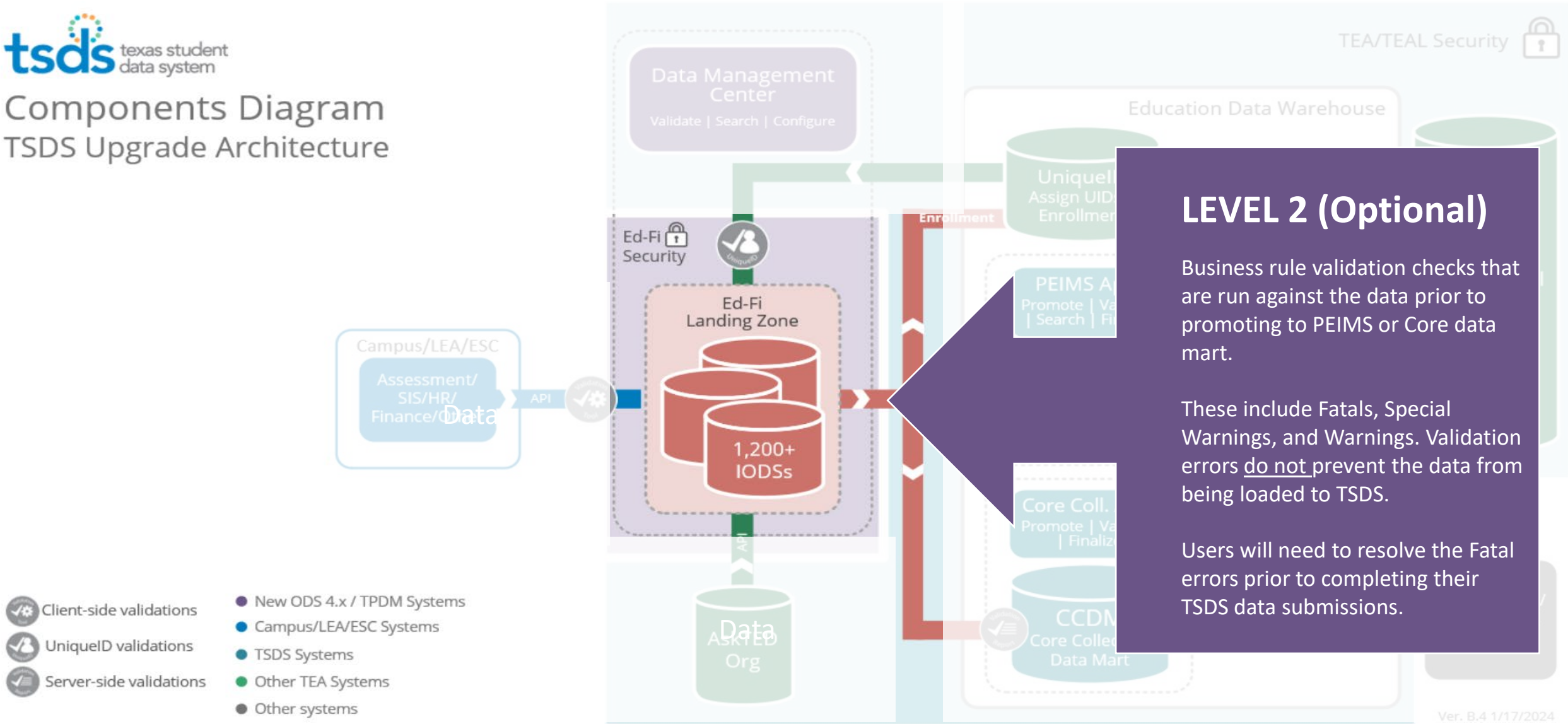
DMC LEA Data Monitor

☑ DMC L1.5 Filters Access

VERIFY RESULT

A result can be "verified" to assist future analysis

LEVEL 2 VALIDATIONS



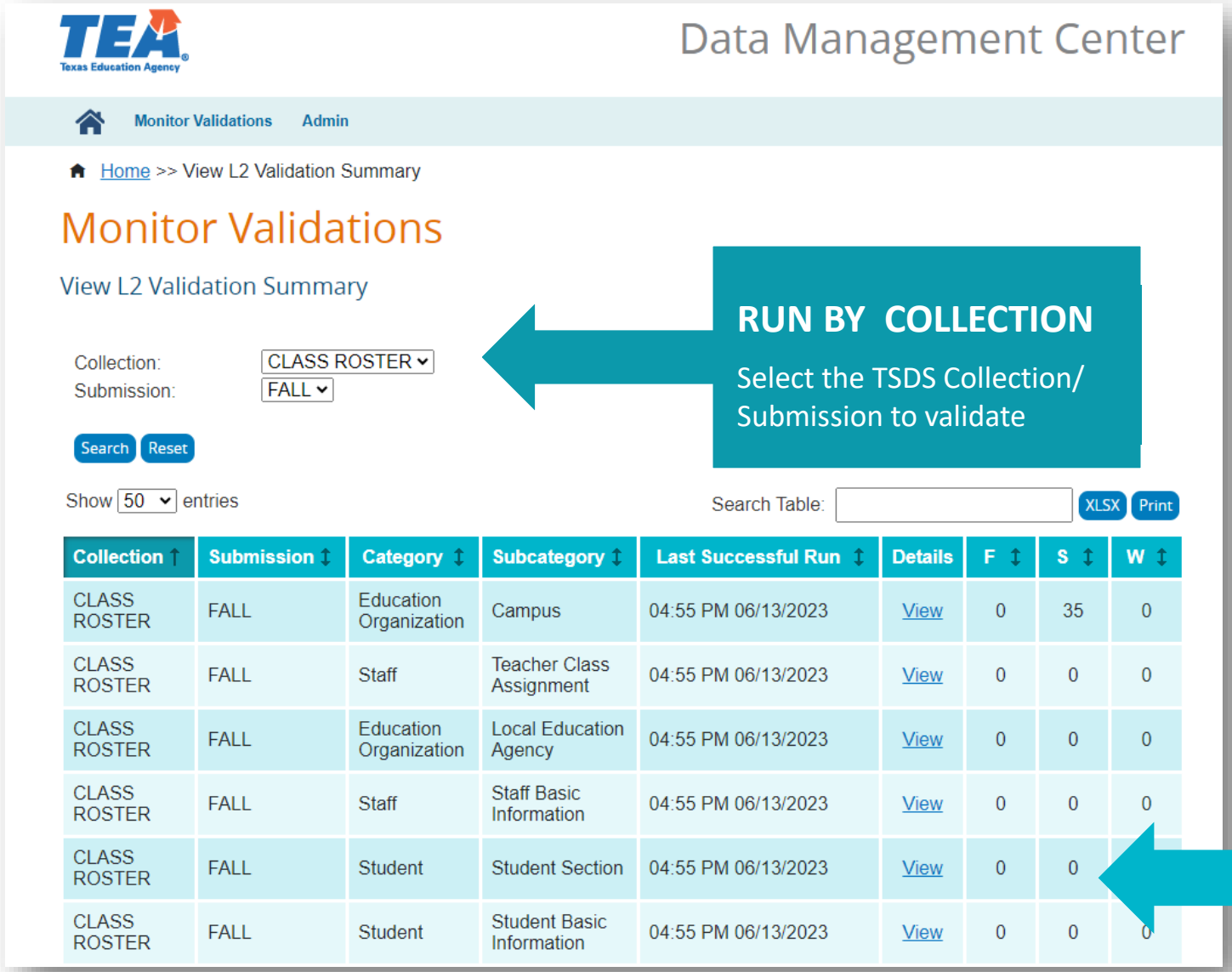
LEVEL 2 (Optional)

Business rule validation checks that are run against the data prior to promoting to PEIMS or Core data mart.

These include Fatals, Special Warnings, and Warnings. Validation errors do not prevent the data from being loaded to TSDS.

Users will need to resolve the Fatal errors prior to completing their TSDS data submissions.

LEVEL 2 VALIDATION EXAMPLES



Collection	Submission	Category	Subcategory	Last Successful Run	Details	F	S	W
CLASS ROSTER	FALL	Education Organization	Campus	04:55 PM 06/13/2023	View	0	35	0
CLASS ROSTER	FALL	Staff	Teacher Class Assignment	04:55 PM 06/13/2023	View	0	0	0
CLASS ROSTER	FALL	Education Organization	Local Education Agency	04:55 PM 06/13/2023	View	0	0	0
CLASS ROSTER	FALL	Staff	Staff Basic Information	04:55 PM 06/13/2023	View	0	0	0
CLASS ROSTER	FALL	Student	Student Section	04:55 PM 06/13/2023	View	0	0	0
CLASS ROSTER	FALL	Student	Student Basic Information	04:55 PM 06/13/2023	View	0	0	0

RUN BY COLLECTION

Select the TSDS Collection/ Submission to validate

TEAL ROLE

DMC LEA L2 Validations

☑ Class Roster Access

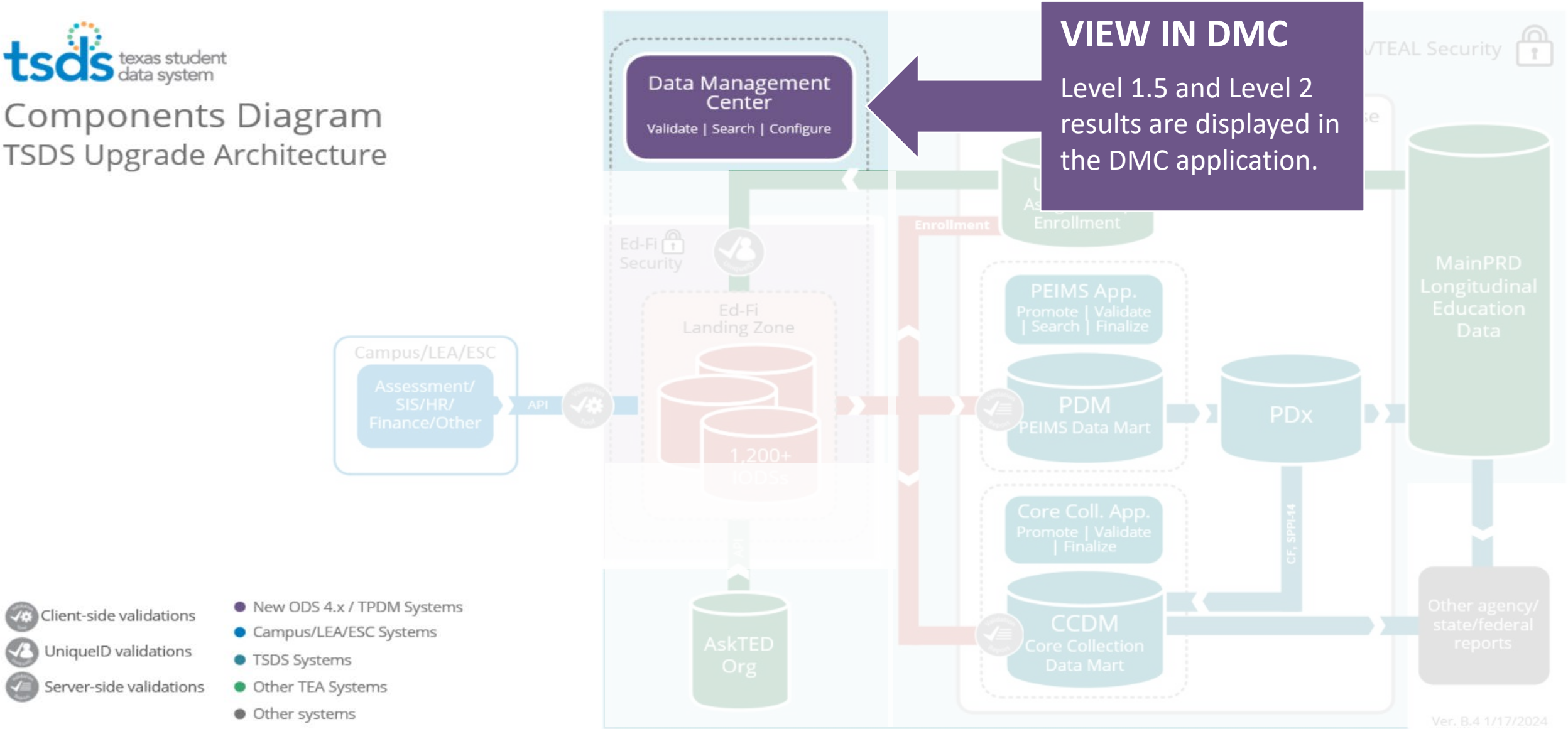
SEVERITY LEVEL

View Fatal, Special Warning, and Warning counts and results

VIEWING LEVEL 1.5 AND LEVEL 2

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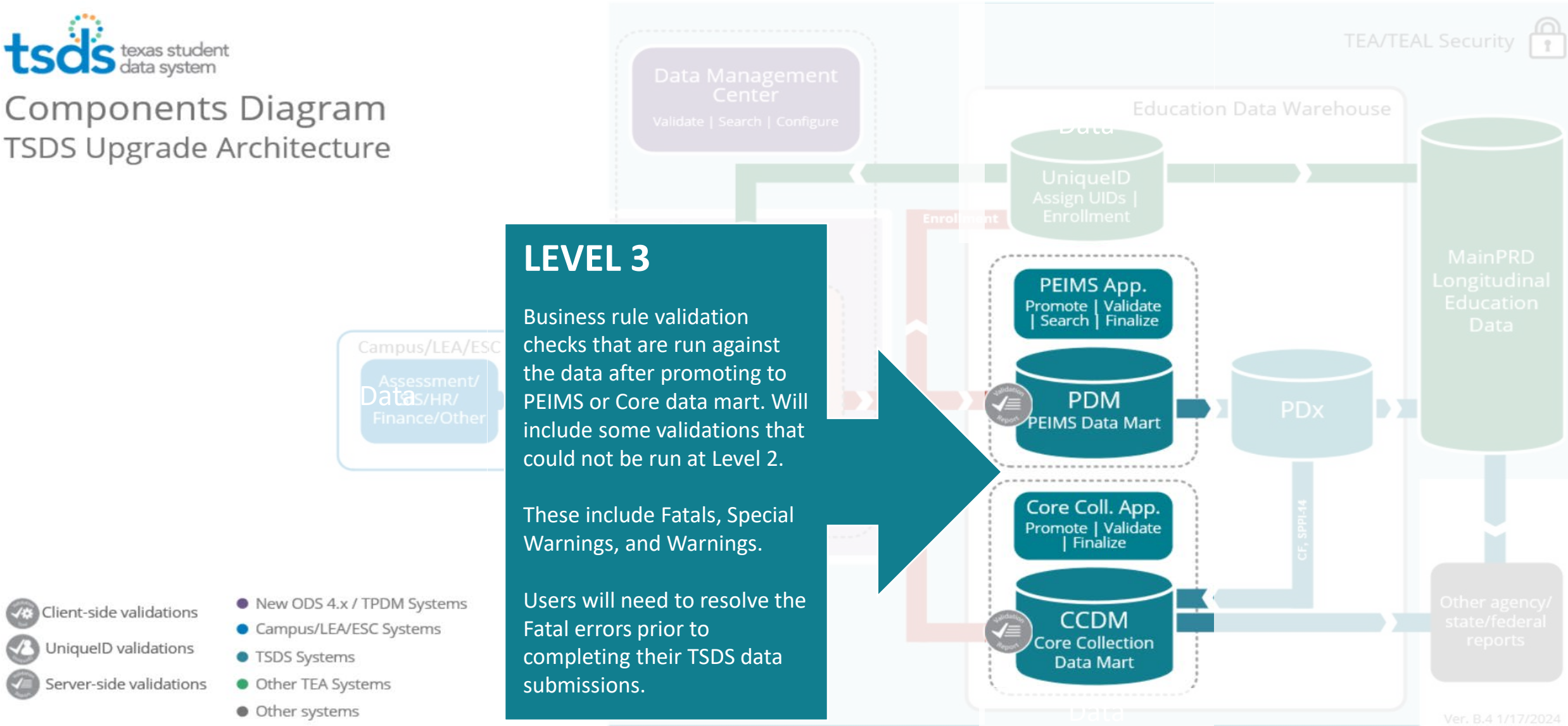
Components Diagram
TSDS Upgrade Architecture



VIEW IN DMC

Level 1.5 and Level 2 results are displayed in the DMC application.

LEVEL 3 VALIDATIONS



LEVEL 3

Business rule validation checks that are run against the data after promoting to PEIMS or Core data mart. Will include some validations that could not be run at Level 2.

These include Fatals, Special Warnings, and Warnings.

Users will need to resolve the Fatal errors prior to completing their TSDS data submissions.

LEVEL 3 VALIDATION EXAMPLES





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TRAINING ACTIVITY

Knowledge Checks

DEMONSTRATION

1. Log in to the TSDS Portal.
2. Navigate to DMC.
3. Hover over View Reports. Click Load Summary.
4. Select the filter type in the Type dropdown to execute your search.
5. Review the number of Domains that have been loaded.
6. Under each Domain, click on the dropdown arrow to see the record count by entity.

KNOWLEDGE CHECK

1. **Which component in the TSDS Architecture diagram will allow the user to view Level 1.5 filters and Level 2 validations?**

   A. Data Marts
   B. IODS (Landing Zone)
   C. Data Management Center
   D. Vendor Source System

Note: The DMC is your new eDM.

KNOWLEDGE CHECK

2. **As we move into the TSDS Upgrade Project, data will be loaded into the LEA's IODS via:**

   A. XML files
   B. API transactions
   C. Comma delimited files
   D. None of the above

Note: No more XML files!

KNOWLEDGE CHECK

3. **With the TSDS Upgrade Project, singular data transactions will ensure data entered in the LEA's source systems is being automatically published to the IODS.**

   A. True
   B. False

Note: Data will be seamlessly updated in the IODS to reflect updates and corrections the LEA makes in their local source systems.

KNOWLEDGE CHECK

4. **Which of the following describes the checks performed in the IODS (Landing Zone) that will prevent data from being promoted to TSDS?**

   A. Level 1
   B. Level 1.5
   C. Level 2
   D. Level 3

Note: The Level 1.5 filters will identify invalid course IDs, non-TSDS descriptor values, invalid or missing Unique IDs, and all data flagged as "Do Not Report".

KNOWLEDGE CHECK

5. Where can Level 2 validations be run and viewed?

A. LEA's local source system
B. Data Management Center (DMC)
C. PEIMS Application
D. Core Application

Note: The Level 2 validations can be run and viewed in the DMC. This will allow the LEA to begin making corrections to their data earlier in the process. These Level 2 validations will **not** stop the data from promoting to the TSDS Data Mart. The business rules executed at Level 2 will be run again as part as the Level 3 validations.



WRAP UP

Key Takeaways, Resources, and Next Steps

KEY TAKEAWAYS

This is a **system upgrade,** not a system replacement.

Vendors will send only **API transactions XML will no longer be accepted**.

TSDS will utilize "**effective dating**" through **begin** and **end dates** to ensure the proper data is promoted.

There are levels of validation to include: **Level 1, Level 2,** and **Level 3**. There is also filtering that occurs at **Level 1.5**.

TRAINING RESOURCES

- TSDS Upgrade Project
  - Description and information on the project

Key Terms and Terms and Definitions

NEXT STEPS

Plan to take additional trainings on:

- TEDS
- DMC
  - LEA TEAL Roles and Privileges
  - Administrative Features
  - Level 1.5 Filters
  - Descriptor Mapping
  - Level 2 Validations

REMEMBER: THIS PROJECT IS A TSDS UPGRADE PROJECT!

Much of what you know will stay the same with some upgrades to make TSDS even better.

WRAP UP

In this training we talked about:

- The purpose of the new components of the TSDS Upgrade Project High Level Architecture.
- The key changes to data loading.
- TSDS validations and filters and where they can be executed and viewed.



QUESTIONS



TSDS Upgrade Project

TEDS Overview

KEY TERMS

Common Type
Data Element
Data Management Center (DMC)
Descriptor Table/Value
Domains
Ed-Fi Data Standard
Entities
Individual Operational Data Store (IODS)
Publish
Texas Education Data Standards (TEDS)
TSDS Web-Enabled Data Standards (TWEDS)

You can find the definitions to these key terms and more here: Link to Key Term Document

LEARNING OBJECTIVES

By the end of this course, the user will be able to explain:

- What the Ed-Fi Data Standard is and how the Texas Education Data Standards (TEDS) are a subset of them.
- Why TEA is updating TEDS to be in alignment with the Ed-Fi Data Standard version 4.
- How some of the information about a student's participation in a program and service will be reported differently in the TSDS Upgrade.
- How to navigate through the new TSDS Web-Enabled Data Standards (TWEDS) to see some of the high-level changes from TEDS 1.x to 4.x.

WHY IS THIS COURSE IMPORTANT

- To provide an overview of the key changes to Texas Education Data Standards (TEDS) as a result of the TSDS Upgrade Project.

- The goal is to ensure the ESC/Certified Vendors understand and can teach these key changes to effectively support LEAs when TEA goes live with the TSDS Upgrade Project.

COURSE AGENDA

GETTING STARTED
Ed-Fi Data Standard, TEDS, and Go-Live

Key Concepts
TEDS Changes, Student Characteristics, and TWEDS Updates

Training Activities
Troubleshooting and Knowledge Checks

WRAP-UP
Key Takeaways, Resources, and Next Steps

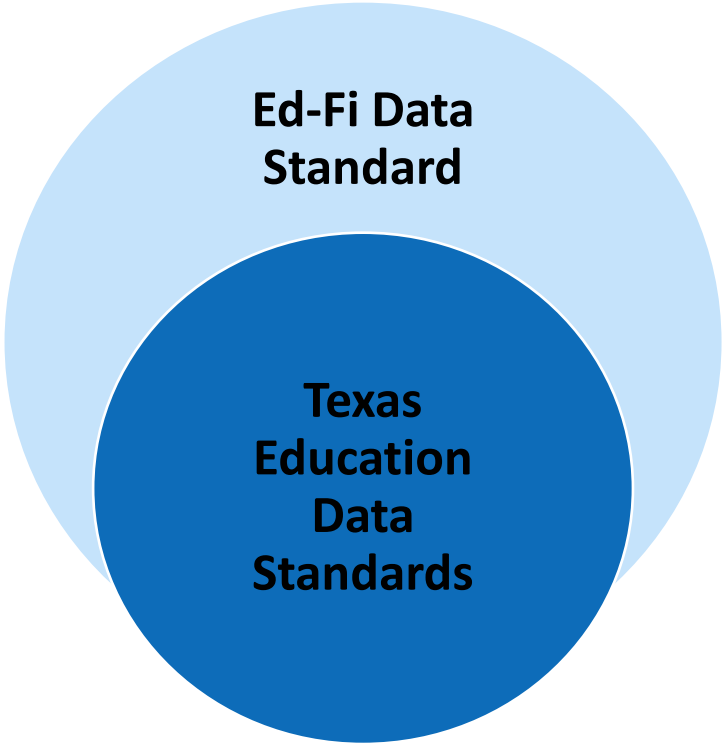


GETTING STARTED

Ed-Fi Data Standard, TEDS, and Go-Live

WHAT IS TEDS?

- The **Ed-Fi Data Standard** is the set of rules for the collection, management, and organization of educational data that allows multiple systems to share their information in a seamless, actionable way.
  - TEDS is a **subset** of the Ed-Fi data standard.
- Refer to the Operation Data Store (ODS) Upgrade Texas Education Data Standards for detailed documentation.



WHY TEDS IS BEING UPDATED?

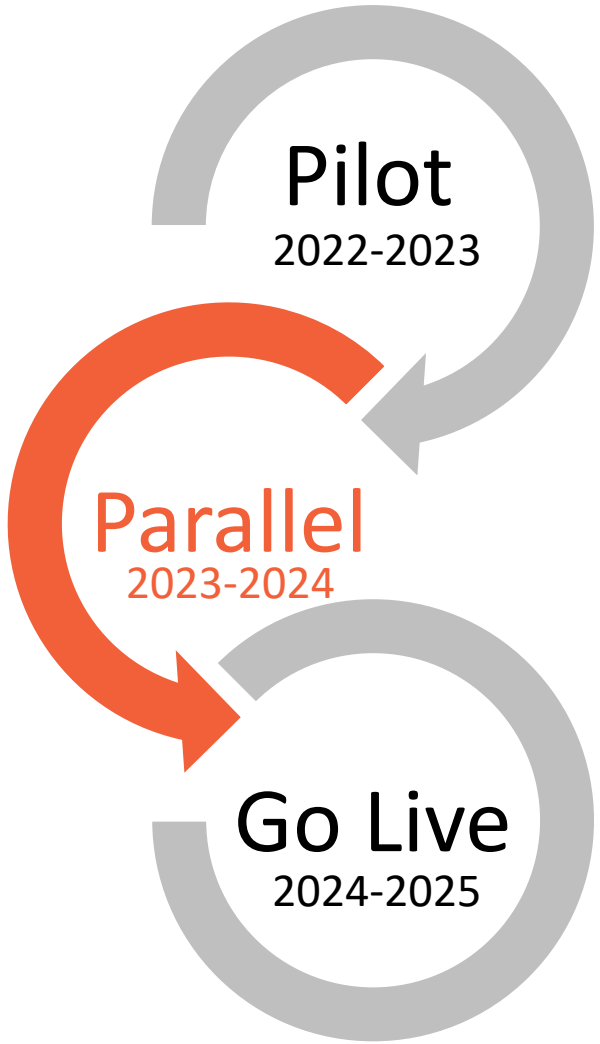
TSDS is **three major versions behind** the current version of the Ed-Fi standard.

Most new TSDS data collections require **TEA extensions** for implementation.

Would allow for **better alignment** for vendors with Ed-Fi based products.



HOW WAS TEDS USED IN PARALLEL?



Participating LEAs in Parallel Year

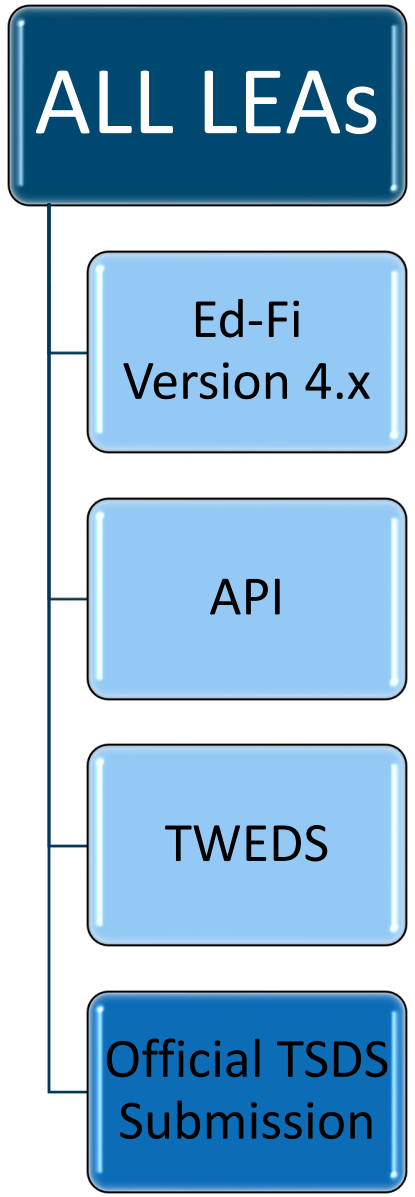
- Ed-Fi Version 4.x
- API
- TEDS PDF

ALL LEAs

- Ed-Fi Version 1.x
- XML
- TWEDS
- Official TSDS Submission

HOW WILL TEDS BE USED WHEN WE GO-LIVE?





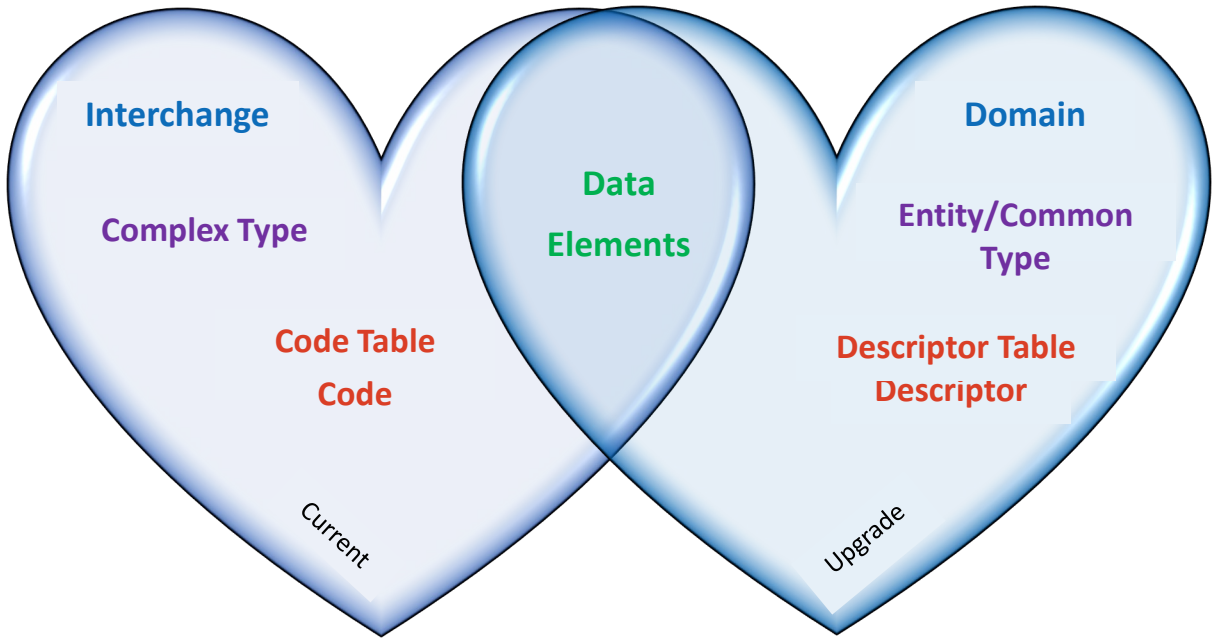


KEY CONCEPTS

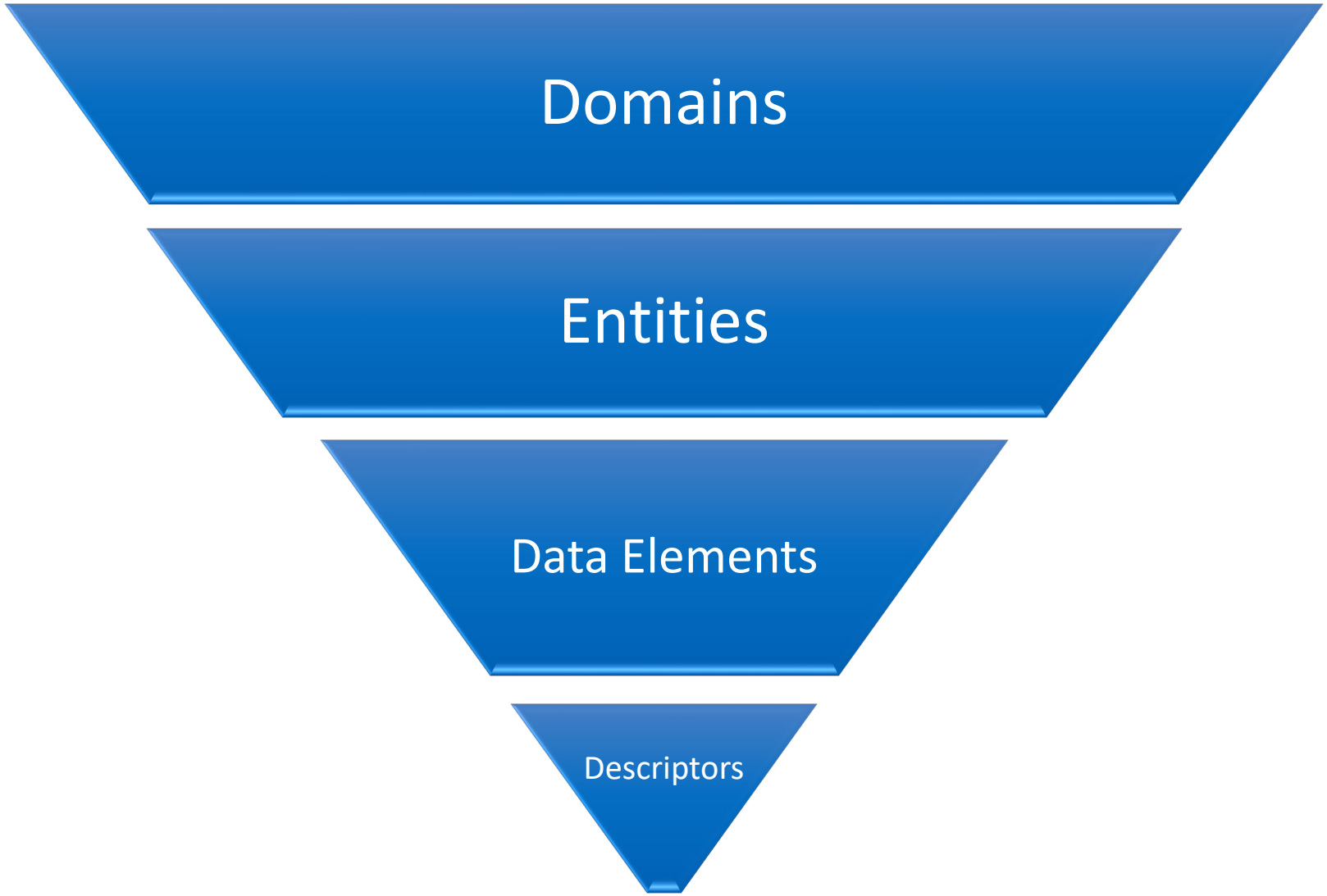
TEDS Changes, Student Characteristics, and TWEDS Updates

TERMINOLOGY CHANGES

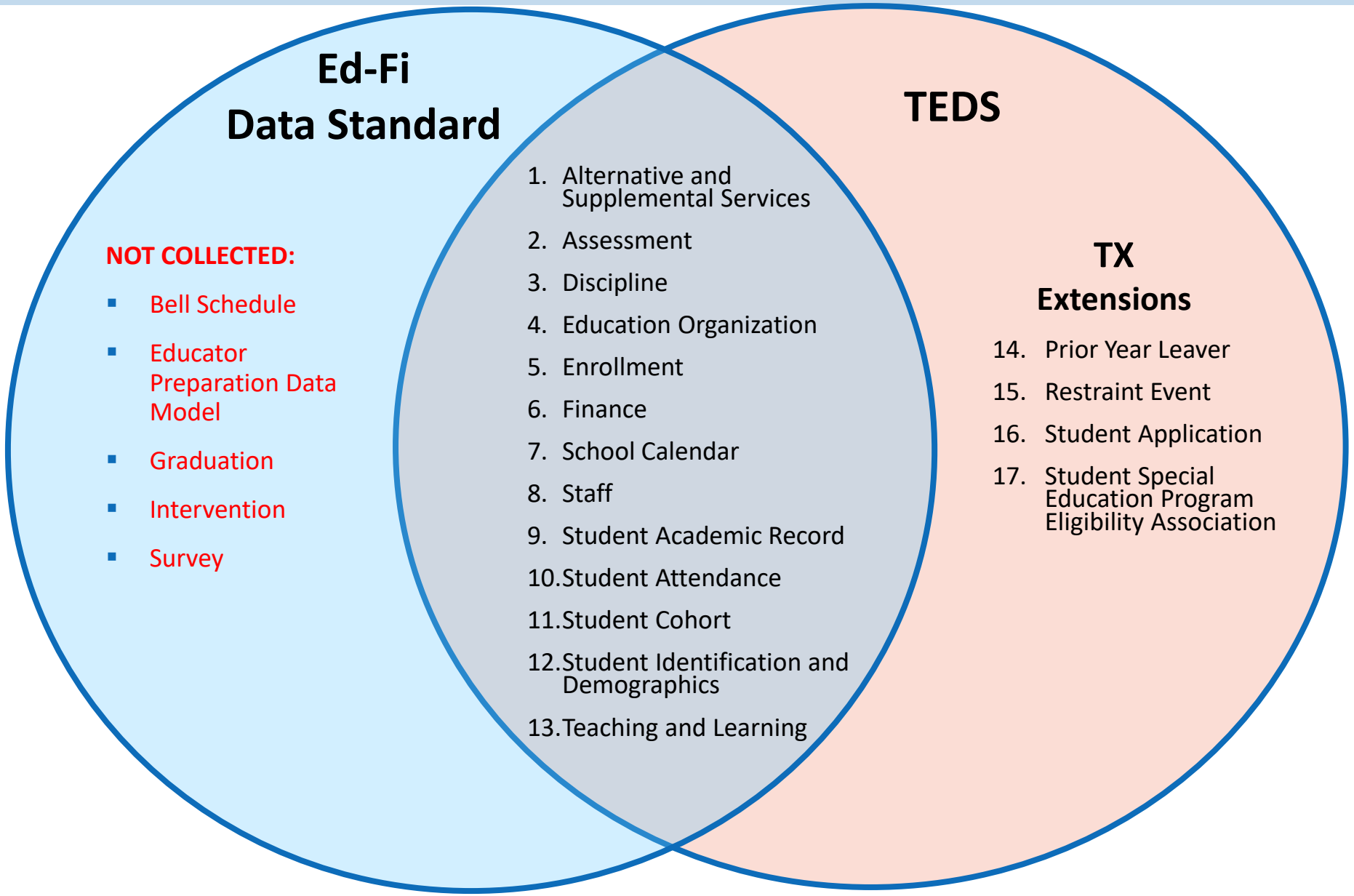
- **Domain**: the highest-level grouping of data elements. Domains are divided into **entities**.
- **Entity**: a group of related **data elements** and **common types** within a **domain**.
- **Common Type**: a grouping of related **data elements** that are within the **entity**.
- **Data Element**: a unit of data defined in the **TEDS data standards**.
- **Descriptor Table**: a defined set of values that may be submitted for a given **data element**.



HIERARCHY OF DATA STANDARDS



ED-FI CORE AND TEXAS EXTENSIONS



TEDS DATA ELEMENT CHANGES

NO CHANGE

- FIRST-NAME
  - 1.x: FIRST-NAME (E0703)
  - 4.x: FirstName (E0703)
    - Same Data Element ID, Name and Definition

SIGNIFICANT CHANGE

- Student Characteristic
  - 1.x: 20+ data elements about student characteristics
    - E.g., At Risk (E0919), Immigrant (E0797) Migrant (E0984), Dyslexia (E1530), etc.
  - 4.x: 1 data element
    - StudentCharacteristic (E3063) - NEW

SIMPLE CHANGE

- DISCIPLINARY-ACTION-REASON-CODE
  - 1.x: DISCIPLINARY-ACTION-REASON-CODE (E1006)
  - 4.x: Behavior (E1006)
    - Same data element definition using the same code/descriptor table, but different name of the data element.

NEW DATA ELEMENTS

- Effective Dating
  - 4.x: Begin & End Dates will be required to be reported with most data elements.
    - E.g., EconomicDisadvantage (E0785)
      - BeginDate (E3010)
      - EndDate (E3020)
- New data elements in the upgrade are identified by numbers beginning with '3'.

TEDS DESCRIPTOR CHANGES

NO CHANGE

- PK-CURRICULA-CODE
  - 1.x: PK-CURRICULA-CODE (C206)
  - 4.x: PKCURRICULA (C206)
    - Same descriptor table and name

SIGNIFICANT CHANGE

- PARTICIPATION-INDICATOR-CODE (C088)
  - 1.x: PARTICIPATION-INDICATOR-CODE (C088)
    - E.g., 0-No, 1-Yes
  - 4.x: StudentCharacteristic (C344) (NEW)
    - E.g., 01 – At Risk, 02 – Immigrant, 03 – Migrant, 04 – Dyslexia, etc.
      - Moved 20+ data elements about student characteristics into the new C334 descriptor table

SIMPLE CHANGE

- POPULATION-SERVED-CODE
  - 1.x: POPULATION-SERVED-CODE (C030) & POPULATION-SERVED-CODE (DC091)
  - 4.x: PopulationServed (C030)
    - Merged PEIMS and TSDS Code tables into one descriptor table.

NEW DESCRIPTOR TABLE

- TRUANCY
  - 1.x: E1657, E1658 & E1659
  - 4.x: Truancy (C346) (NEW)
    - 01 – Excessive Unexcused Absences
    - 02 – Truancy Prevention Measures
    - 03 – Truancy Complaint Filed
      - Merged the three data elements on truancy into the new C346 descriptor table
- New descriptor tables in the upgrade are identified by numbers beginning with '3'.

Texas Education Agency



STUDENT CHARACTERISTICS

Walkthrough

SIGNIFICANT CHANGE - COMBINING DATA ELEMENTS

- To align with the Ed-Fi 4.x data standard, TEA has combined multiple data elements into corresponding descriptor tables to streamline the data collection process.
- Few examples of where we have combined multiple data elements into corresponding descriptor tables:
  - StudentCharacteristic **(E3063)**
  - SpecialEducationProgramService **(E3058)**
  - Responsibility **(E3051)**
  - LanguageInstructionProgramService **(E3034)**
  - CTEProgramService **(E3012)**
  - Languages **(E3035)**
  - Language **(E3033)**
  - Truancy **(E3068)**
  - EndorsementPursuing **(E3022)**
  - EndorsementCompleted **(E3021)**
- These data elements begin with the number **‘3’** to indicate they are new data elements in TEDS for the Ed-Fi 4.x upgrade.

STUDENT CHARACTERISTICS

Ed-Fi 1.0		
Element ID	**Data Element Name**	**PARTICIPATION-INDICATOR-CODE (C088)**
E0919	AT-RISK-INDICATOR-CODE	C088 (Yes/No)
E0797	IMMIGRANT-INDICATOR-CODE	C088 (Yes/No)
E0984	MIGRANT-INDICATOR-CODE	C088 (Yes/No)
E1530	DYSLEXIA-INDICATOR-CODE	C088 (Yes/No)
E1559	T-STEM-INDICATOR-CODE	C088 (Yes/No)
E1560	ECHS-INDICATOR-CODE	C088 (Yes/No)
E1612	P-TECH-INDICATOR-CODE	C088 (Yes/No)
E1647	NEW-TECH-INDICATOR-CODE	C088 (Yes/No)
E1564	IEP-CONTINUER-INDICATOR-CODE	C088 (Yes/No)
E1601	STAR-OF-TEXAS-INDICATOR-CODE	C088 (Yes/No)
E1649	PK-ELIGIBLE-PREVIOUS-YEAR-INDICATOR-CODE	C088 (Yes/No)
E1603	SECTION-504-INDICATOR-CODE	C088 (Yes/No)
E1602	INTERVENTION-STRATEGY-INDICATOR-CODE	C088 (Yes/No)
E1432	PREGNANCY-RELATED-SERVICES	C088 (Yes/No)
E0034	GIFTED-TALENTED-INDICATOR-CODE	C088 (Yes/No)
E1660	ADULT-PREVIOUS-ATTENDANCE-INDICATOR-CODE	C088 (Yes/No)
E1730	GENERAL-EDUCATION-HOMEBOUND-INDICATOR	C088 (Yes/No)
E1729	PARENT-REQUEST-RETENTION-INDICATOR	C088 (Yes/No)
E1028	BILINGUAL/ESL-SUMMER-SCHOOL-INDICATOR-CODE	C088 (Yes/No)
E1672	ADDITIONAL-DAYS-PROGRAM-PARTICIPATION-INDICATOR-CODE	C088 (Yes/No)
E1735	VIRTUAL-STUDENT-NOT-IN-MEMBERSHIP	C088 (Yes/No)
EXXX	N/A	N/A

20+ Data Elements

Ed-Fi 4.0		
Element ID	**Ed-Fi 4.x Data Element Name**	**StudentCharacteristic (C344)**
1 Data Element **E3063**	**StudentCharacteristic**	01 – At Risk 02 – Immigrant 03 – Migratory 04 – Dyslexia 05 – T-STEM 06 – ECHS 07 – P-TECH 08 – New Tech 09 – IEP Continuer 10 – Star Of Texas 11 – PK Eligible Prior Year 12 – Section 504 13 – Intervention Strategy 14 – Pregnancy Related Services 15 – Gifted And Talented 16 – Adult Previous Attendance 17 – Gifted And Talented 18 – Parent Request Retention 19 – Bilingual/ESL Summer School 20 – Additional Days Program Participation 21 – Virtual Student Not In Membership 22 – R-PEP Participation

EXAMPLE: HOW STUDENT CHARACTERISTICS WILL BE REPORTED

Ed-Fi 1.0		
Element ID	Data Element Name	PARTICIPATION-INDICATOR-CODE (C088)
E0919	AT-RISK-INDICATOR-CODE	No
E0797	IMMIGRANT-INDICATOR-CODE	No
E0984	MIGRANT-INDICATOR-CODE	No
E1530	DYSLEXIA-INDICATOR-CODE	No
E1559	T-STEM-INDICATOR-CODE	No
E1560	ECHS-INDICATOR-CODE	No
E1612	P-TECH-INDICATOR-CODE	No
E1647	NEW-TECH-INDICATOR-CODE	No
E1564	IEP-CONTINUER-INDICATOR-CODE	No
E1601	STAR-OF-TEXAS-INDICATOR-CODE	No
E1649	PK-ELIGIBLE-PREVIOUS-YEAR-INDICATOR-CODE	No
E1603	SECTION-504-INDICATOR-CODE	No
E1602	INTERVENTION-STRATEGY-INDICATOR-CODE	No
E1432	PREGNANCY-RELATED-SERVICES	Yes
E0034	GIFTED-TALENTED-INDICATOR-CODE	Yes
E1660	ADULT-PREVIOUS-ATTENDANCE-INDICATOR-CODE	No
E1730	GENERAL-EDUCATION-HOMEBOUND-INDICATOR	No
E1729	PARENT-REQUEST-RETENTION-INDICATOR	No
E1028	BILINGUAL/ESL-SUMMER-SCHOOL-INDICATOR-CODE	No
E1672	ADDITIONAL-DAYS-PROGRAM-PARTICIPATION-INDICATOR-CODE	No
E1735	VIRTUAL-STUDENT-NOT-IN-MEMBERSHIP	No

ALL 21 items get reported with a ‘1’ or ‘0’ code value

Ed-Fi 4.0		
Element ID	Data Element Name	StudentCharacteristic (C344)
E3063	StudentCharacteristic	14 – Pregnancy Related Services
		15 – Gifted And Talented

Only 2 items get reported with the descriptor values ‘14’ and ‘15’

EXAMPLE OF MULTIPLE CHARACTERISTICS

- Multiple instances (Common Type) for a student depending on which ones apply to them.
  - Each student characteristic will have its own descriptor value with a **begin date** and **end date**.

StudentEducationOrganizationAssociation						
..StudentCharacteristic						
(may have multiple instances)	StudentCharacteristic		14	StudentCharacteristic C344		
	Period	BeginDate	2024-08-17	Date		
		EndDate	2025-03-21	Date		

StudentEducationOrganizationAssociation						
..StudentCharacteristic						
(may have multiple instances)	StudentCharacteristic		15	StudentCharacteristic C344		
	Period	BeginDate	2024-08-17	Date		
		EndDate	Null	Date		

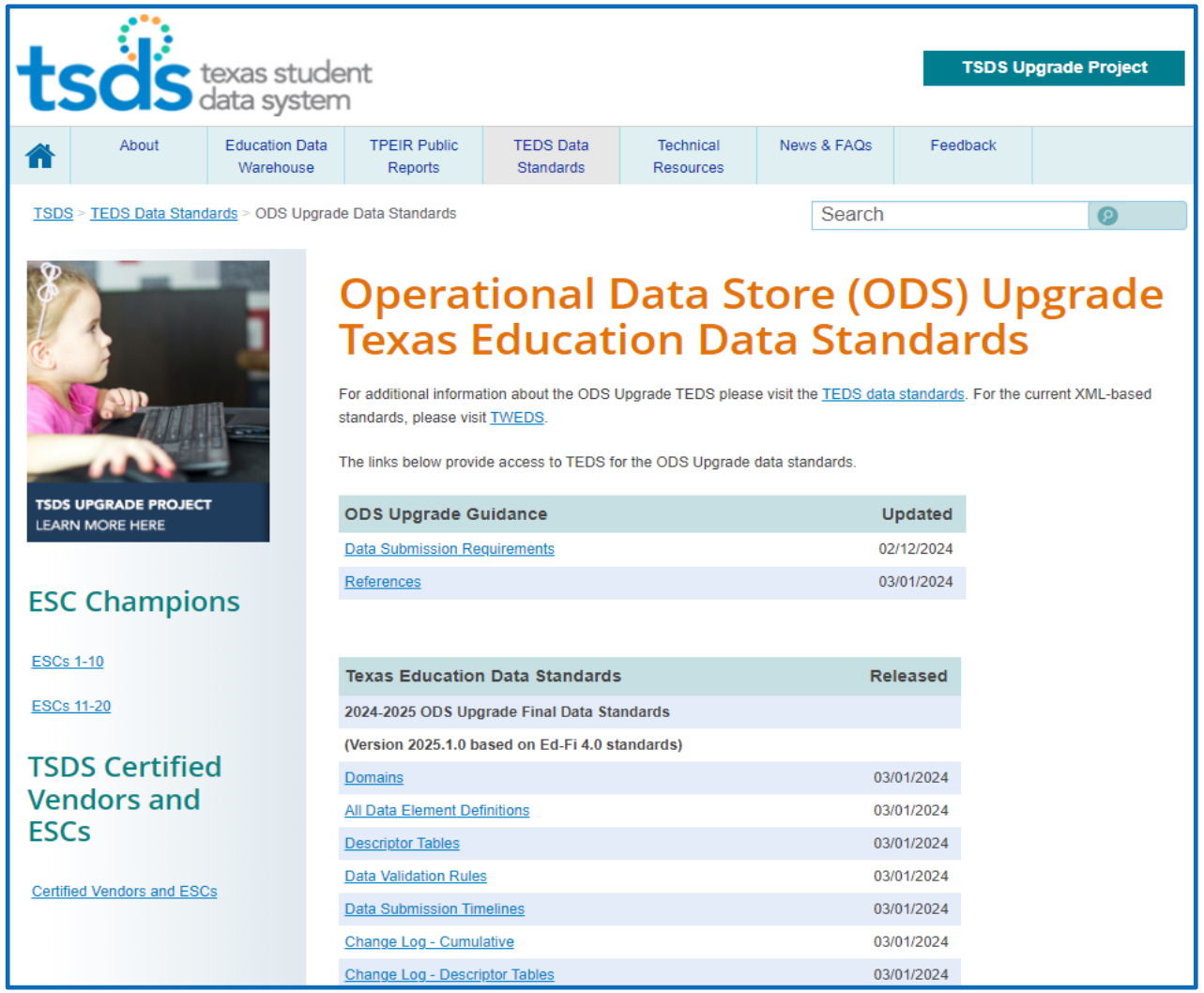
Texas Education Agency



TSDS Web-Enabled Data Standards (TWEDS) Updates

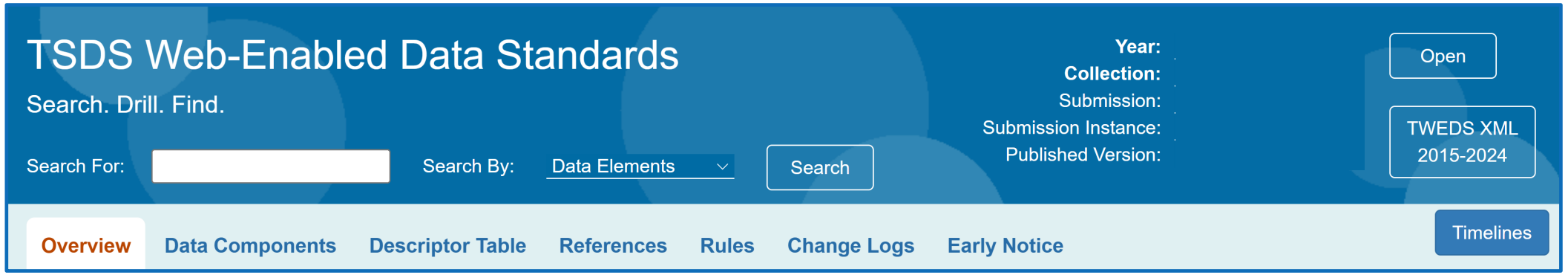
WHERE IS TWEDS

Texas Education Data Standards 4.x



- Go to the TSDS website at https://www.texasstudentdatasystem.org
- Hover over the TEDS Data Standards tab
- Next, click on Pilot ODS 3.x Data Standards
- Finally, click on the TWEDS hyperlink near the top, or click on the hyperlink under the current version of TEDS.

NEW TWEDS



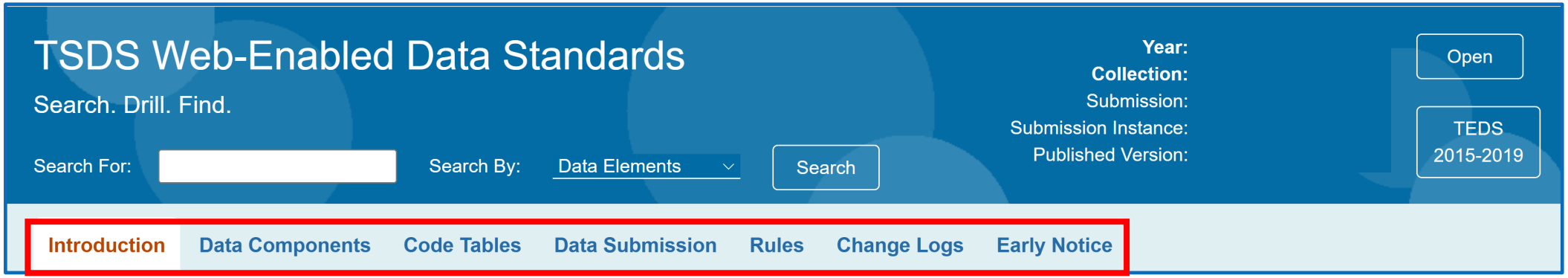
- The new TSDS Web-Enabled Data Standards (TWEDS) are under construction.
- The July 1, 2024, publication will be completed in new TWEDS.



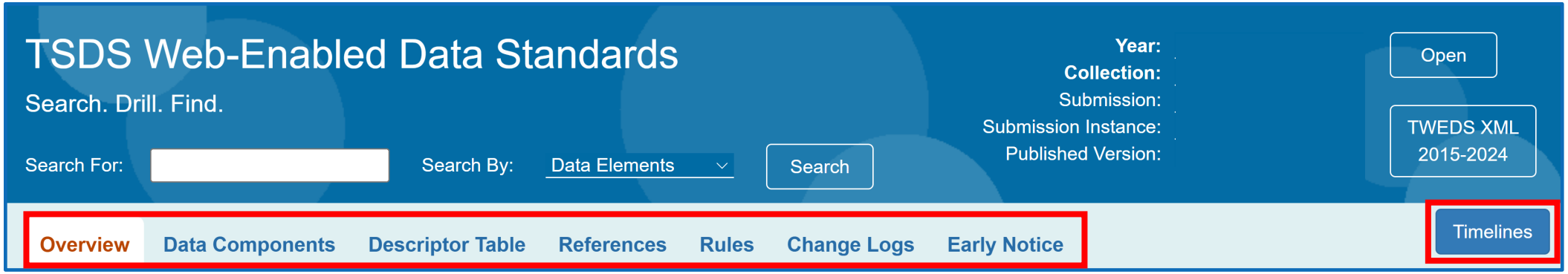
CURRENT TWEDS VS. NEW TWEDS – HOME PAGE

Minor Changes with New Features!

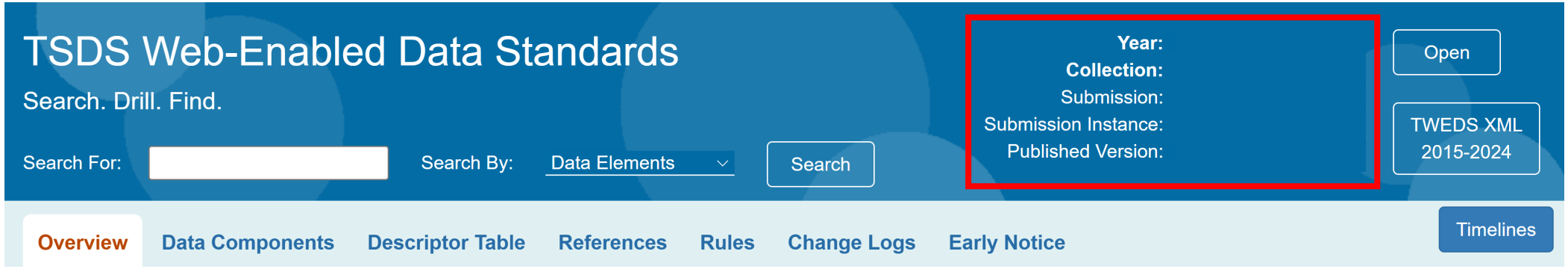
CURRENT TWEDS (XML 1.X)



NEW TWEDS (API 4.X)



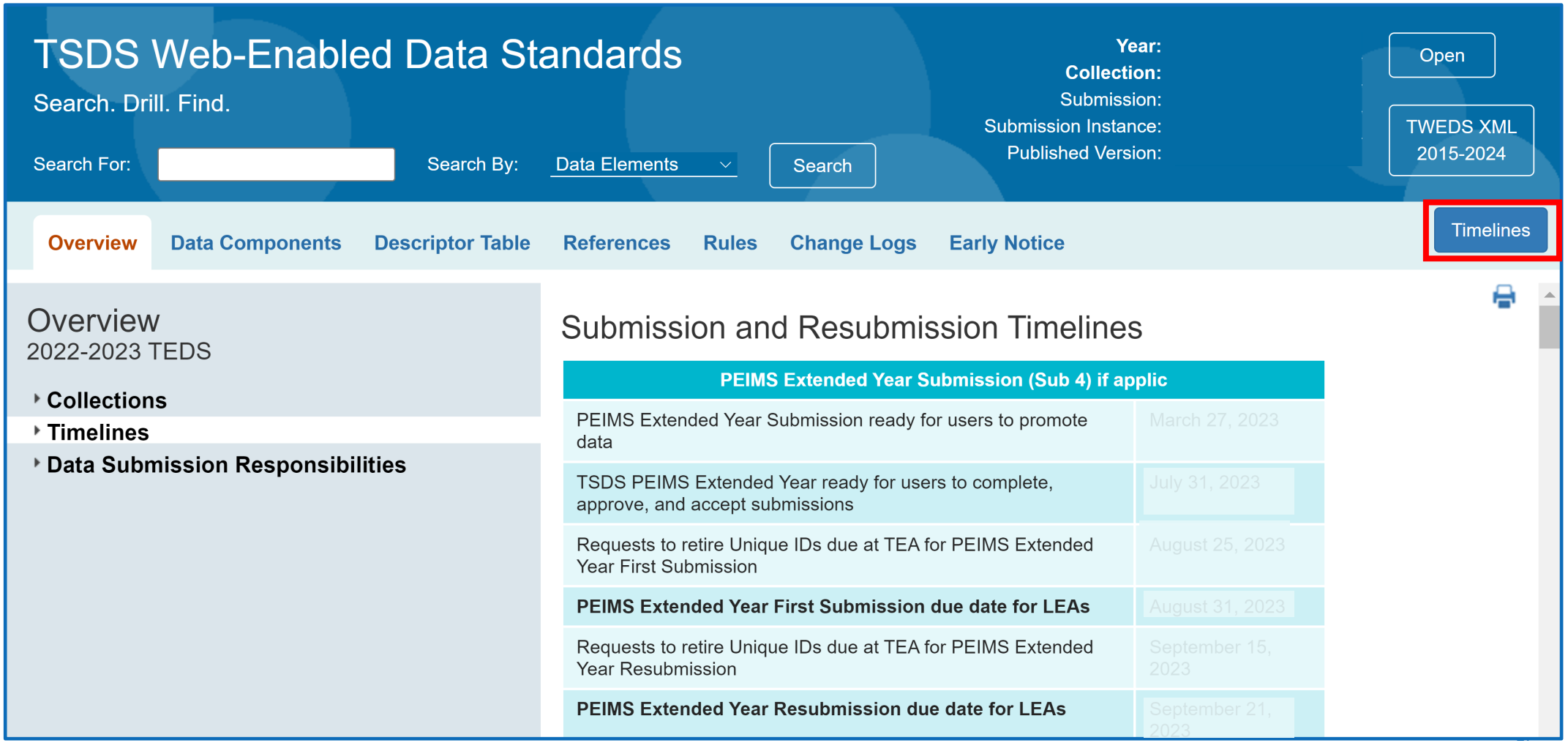
TWEDS – SETTING SEARCH CRITERIA



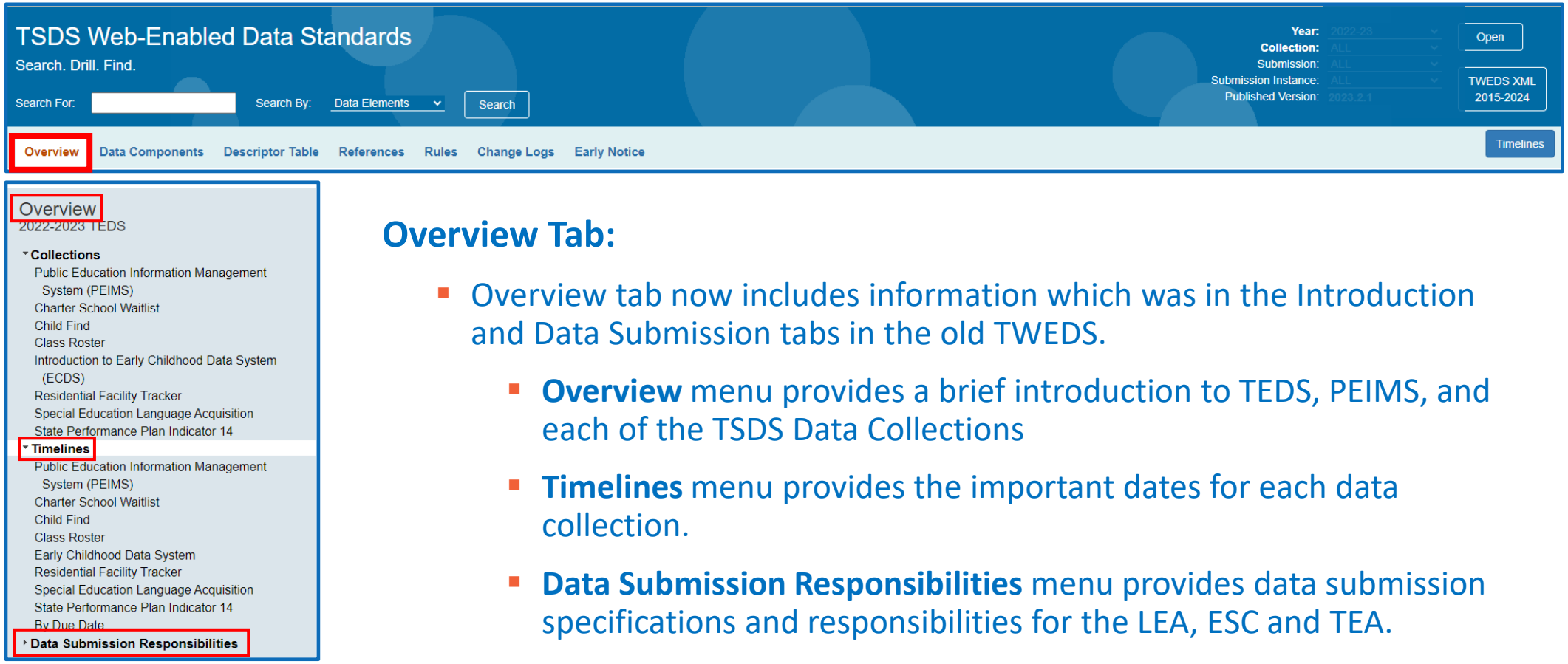
- Year – You will specify the information you wish to view first by school year.
- Collection – Next, you can select to view information for all collections or for a specific data collection.
- Submission – If the collection selected has multiple submissions, you will select the submission, i.e., PEIMS Fall, Class Roster Fall.
- Submission Instance – If PEIMS was selected as the Collection, you can choose the instance, i.e., First or Resub.
- Published Version – You can see the current version of TEDS.
- Open – You will be prompted to click “Open” to set the selected criteria.

TWEDS – TIMELINES BUTTON

- Timelines button provides easy access to the Submission and Resubmission Timelines.



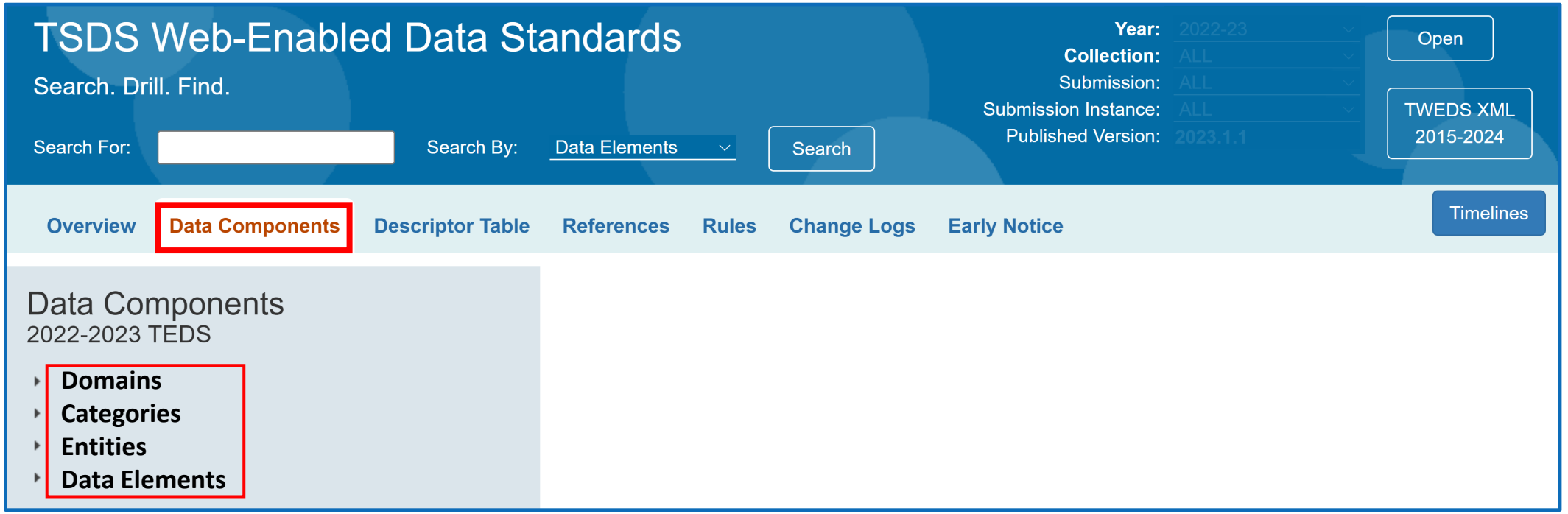
TWEDS – OVERVIEW



Overview Tab:

- Overview tab now includes information which was in the Introduction and Data Submission tabs in the old TWEDS.
  - **Overview** menu provides a brief introduction to TEDS, PEIMS, and each of the TSDS Data Collections
  - **Timelines** menu provides the important dates for each data collection.
  - **Data Submission Responsibilities** menu provides data submission specifications and responsibilities for the LEA, ESC and TEA.

TWEDS – DATA COMPONENTS



Data Components Tab:

- Same information with some new terminology.

TWEDS – DATA COMPONENTS

TSDS Web-Enabled Data Standards

Search. Drill. Find.

Search For: | Search By: Data Elements | Search

Year: 2022-23
Collection: ALL
Submission: ALL
Submission Instance: ALL
Published Version: 2023.1.1

Open

TWEDS XML 2015-2024

Overview | **Data Components** | Descriptor Table | References | Rules | Change Logs | Early Notice

Timelines

Data Components
2022-2023 TEDS

- **Domains**
- **Categories**
- **Entities**
- **Data Elements**



Student Identification and Demographics Domain

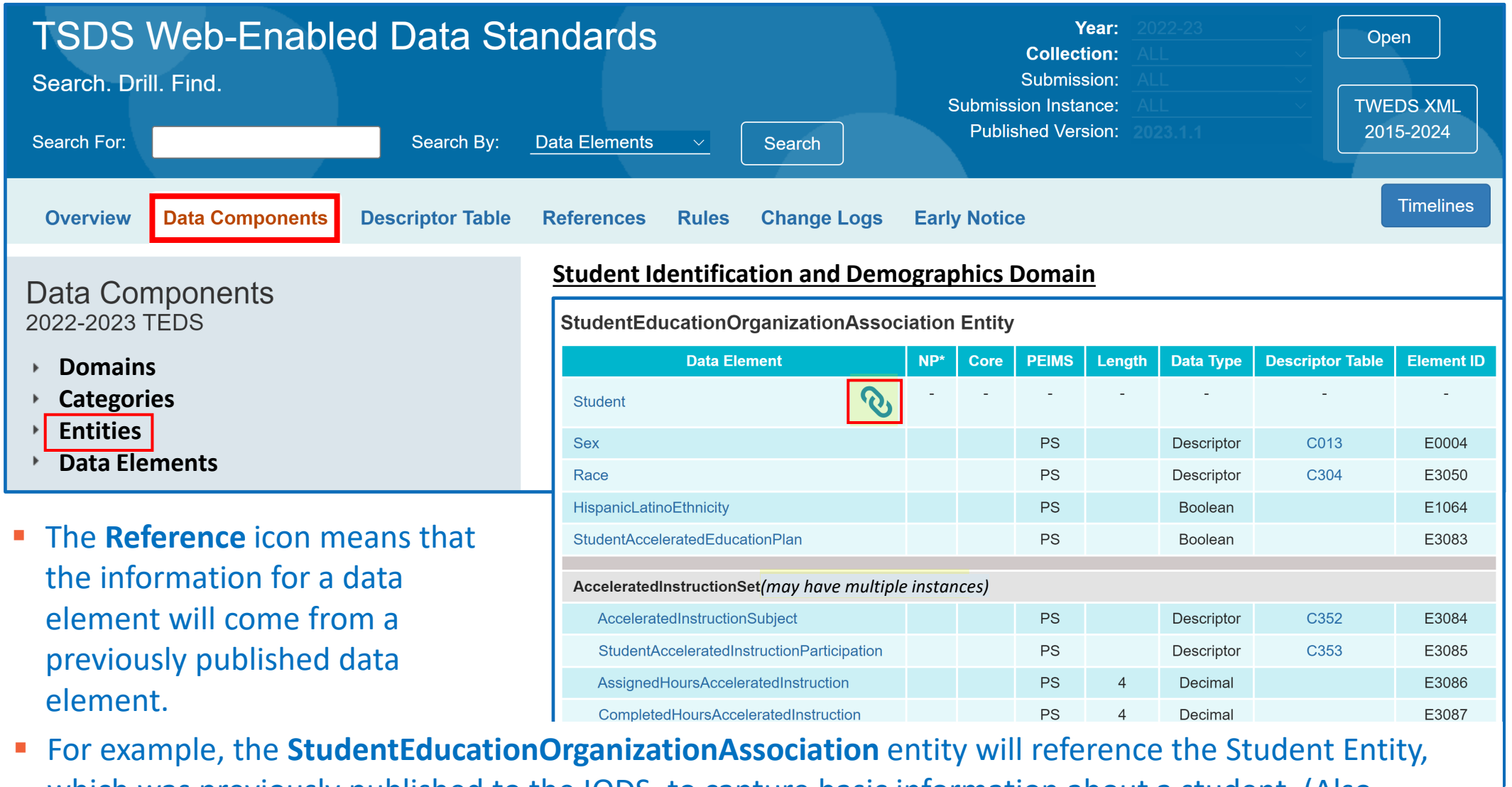
Student Entity

Data Element	NP*	Core	PEIMS	Length	Data Type	Descriptor Table	Element ID
StudentUniqueId		✓	PS,PE,PF	10	String		E1523
LocalStudentId		✓	PS,PE,PF	9	String		E0923
StudentId		✓	PS,PE,PF	9	String		E0001
GenerationCode		✓	PS,PE,PF		Descriptor	C012	E0706
AsOfStatusLastFridayOctober					Descriptor	C324	E3007
AsOfStatusLastDayEnrollment					Descriptor	C323	E3006
StudentDoNotReportTSDS					Boolean		E3009
NonEnrolledStudentUILActivity					Descriptor	C234	E1739
StudentCensusBlockGroupSet *(may have multiple instances)*							
StudentCensusBlockGroup			PS,PF	12	String		E1648
BeginDate			PS,PE,PF	10	Date		E3010
EndDate			PS,PE,PF	10	Date		E3020
CrisisEventSet *(may have multiple instances)*							
CrisisEvent			PS,PE,PF		Descriptor	C178	E1054
BeginDate			PS,PE,PF	10	Date		E3010
EndDate			PS,PE,PF	10	Date		E3020
Name							
FirstName		✓	PS,PE,PF	75	String		E0703
MiddleName		✓	PS,PE,PF	75	String		E0704
LastSurname		✓	PS,PE,PF	75	String		E0705

Collected in Core Submissions:
SPPI-14 - SPPI-14
RFT - RFT
CSW - Charter School Waitlist
ECDS - ECDS-KG
ECDS - ECDS-PK
CF - Child Find
CR - CRW

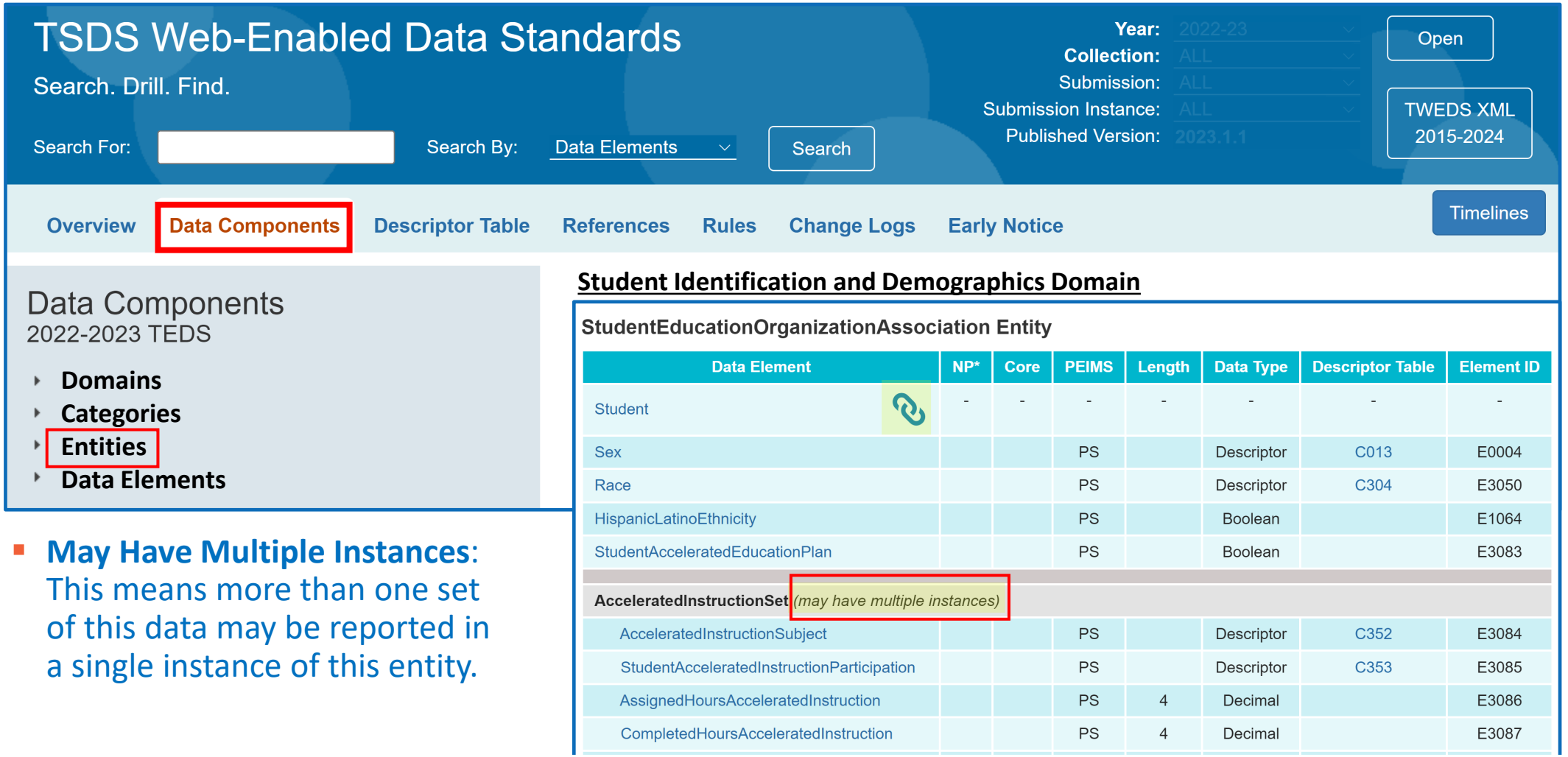
- Within each Entity, every data element will display to which Collection/Submission the data element will be reported for TSDS state reporting.
- No longer need to use filters to determine which data elements apply to the collection.

TWEDS – DATA COMPONENTS (CONT.)



- The **Reference** icon means that the information for a data element will come from a previously published data element.
- For example, the **StudentEducationOrganizationAssociation** entity will reference the Student Entity, which was previously published to the IODS, to capture basic information about a student. (Also referred to as Referential Integrity.)

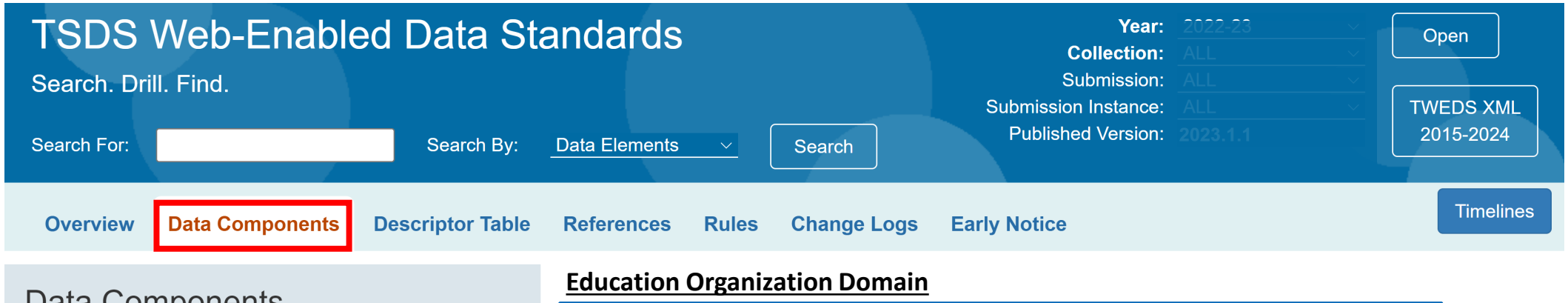
TWEDS – DATA COMPONENTS (CONT.)



- **May Have Multiple Instances**: This means more than one set of this data may be reported in a single instance of this entity.

- For instance, in this example, you can have multiple **AcceleratedInstructionSet** depending on the number of subjects in which the student is eligible to receive accelerated instruction.

TWEDS – DATA COMPONENTS (CONT.)



Data Components
2022-2023 TEDS

- **Domains**
- **Categories**
- **Entities**
- **Data Elements**

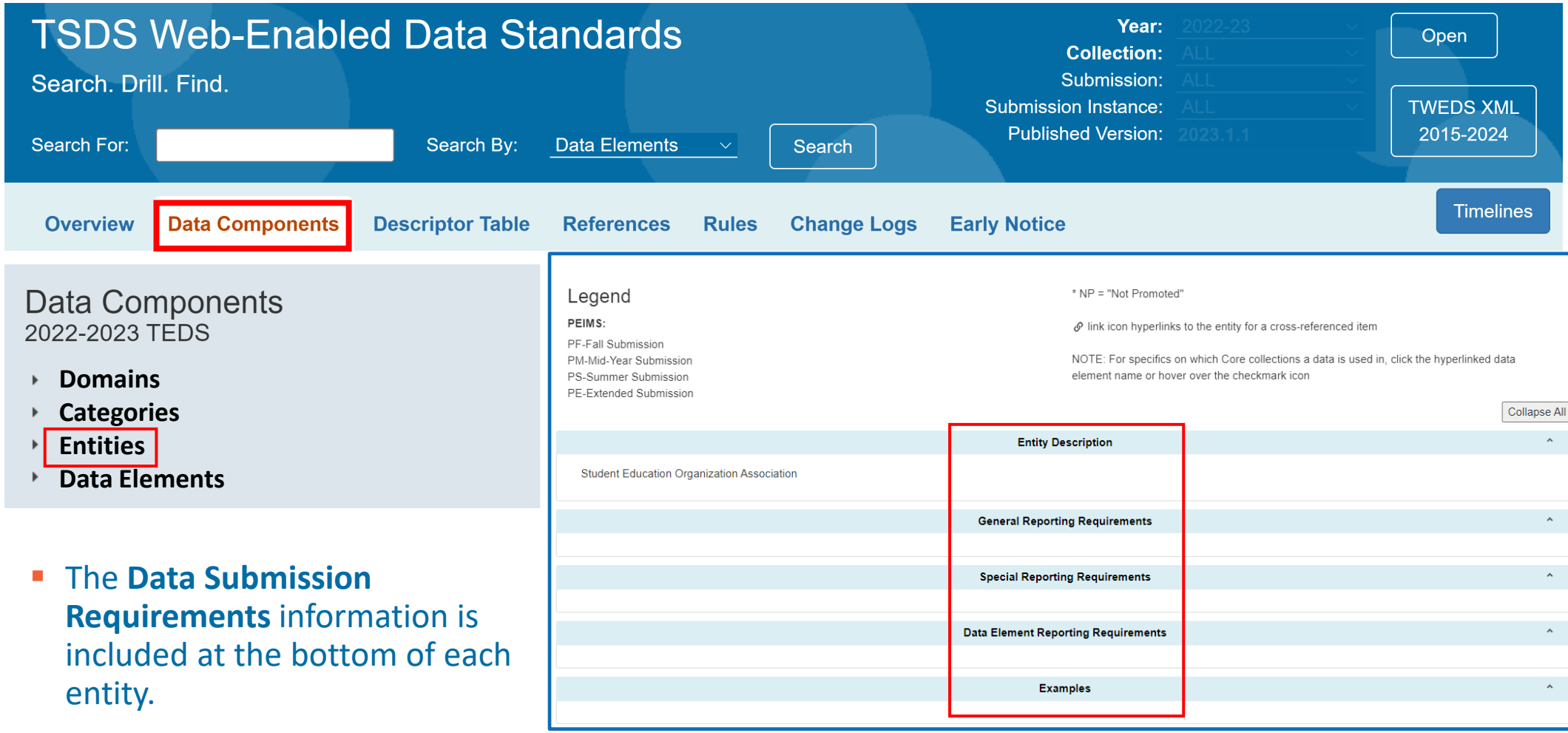
Education Organization Domain

EducationServiceCenter Entity

Data Element	NP*	Core	PEIMS	Length	Data Type	Descriptor Table	Element ID
EducationOrganizationCategory *(may have multiple instances)*	✓				Descriptor	C331	E3019
NameOfInstitution			PF,PM	75	String		E3037
EducationServiceCenter			PF,PM	6	Number		E1091

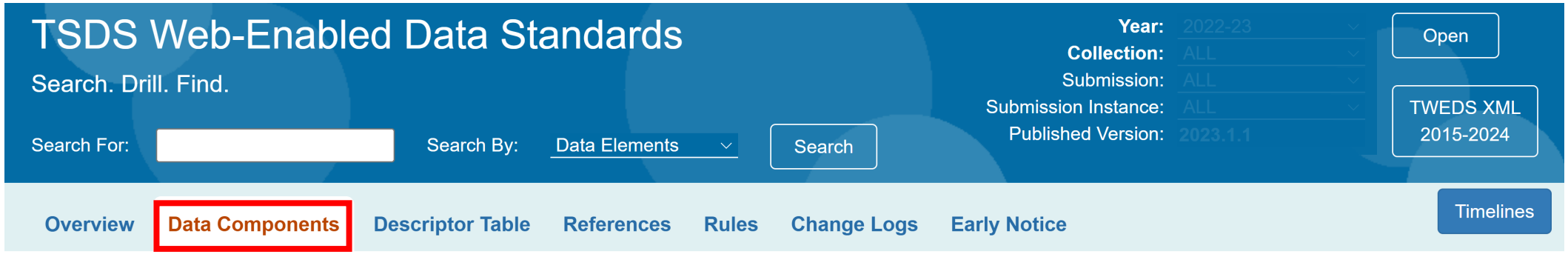
- **NP* (Landing Zone/Not Promoted Data Elements) (Cont.)**
  - Data elements that are part of the key or mandatory for Ed-Fi but not used by TEA. These data elements will be loaded into the Landing Zone but will not be promoted to the Core Collection or PEIMS Data Marts.
  - In this example, within the **EducationServiceCenter** Entity the **EducationOrganizationCategory** data element will **not be promoted to TSDS** since it has a check mark under the NP* column.

TWEDS – DATA COMPONENTS (CONT.)



- The **Data Submission Requirements** information is included at the bottom of each entity.

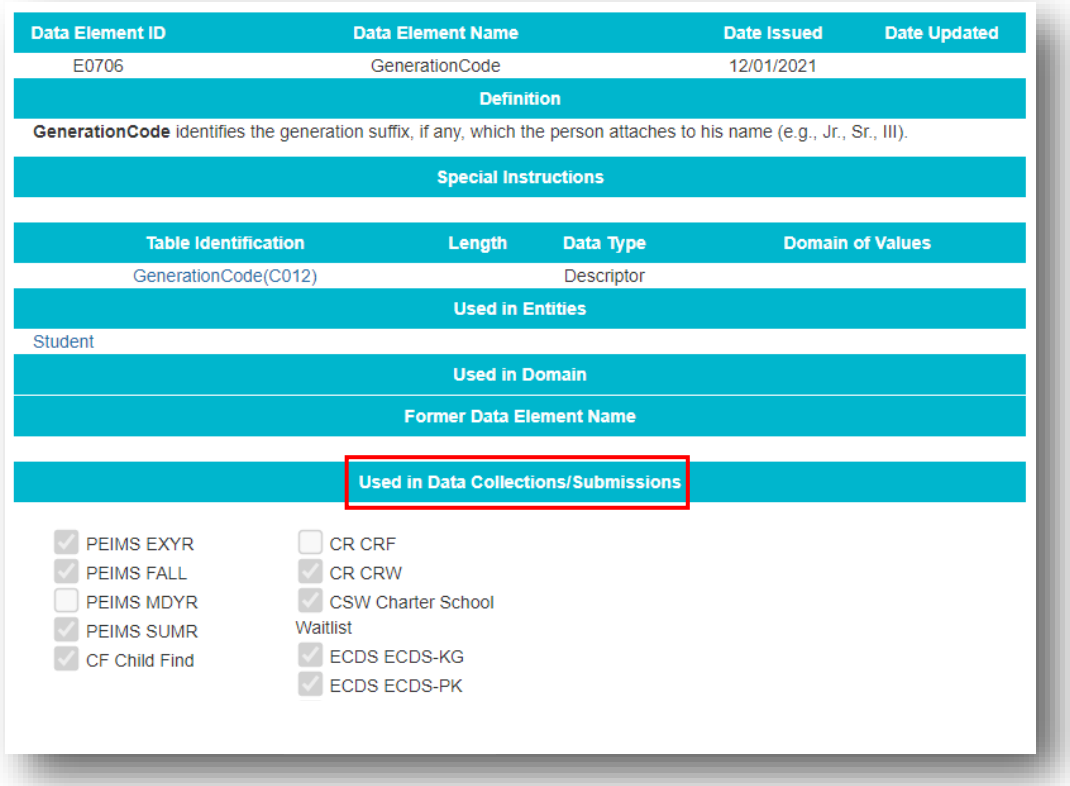
TWEDS – DATA COMPONENTS (CONT.)



Data Components
2022-2023 TEDS

- **Domains**
- **Categories**
- **Entities**
- **Data Elements**





Data Element ID	Data Element Name	Date Issued	Date Updated
E0706	GenerationCode	12/01/2021	

Definition

GenerationCode identifies the generation suffix, if any, which the person attaches to his name (e.g., Jr., Sr., III).

Special Instructions

Table Identification	Length	Data Type	Domain of Values
GenerationCode(C012)		Descriptor	

Used in Entities

Student

Used in Domain

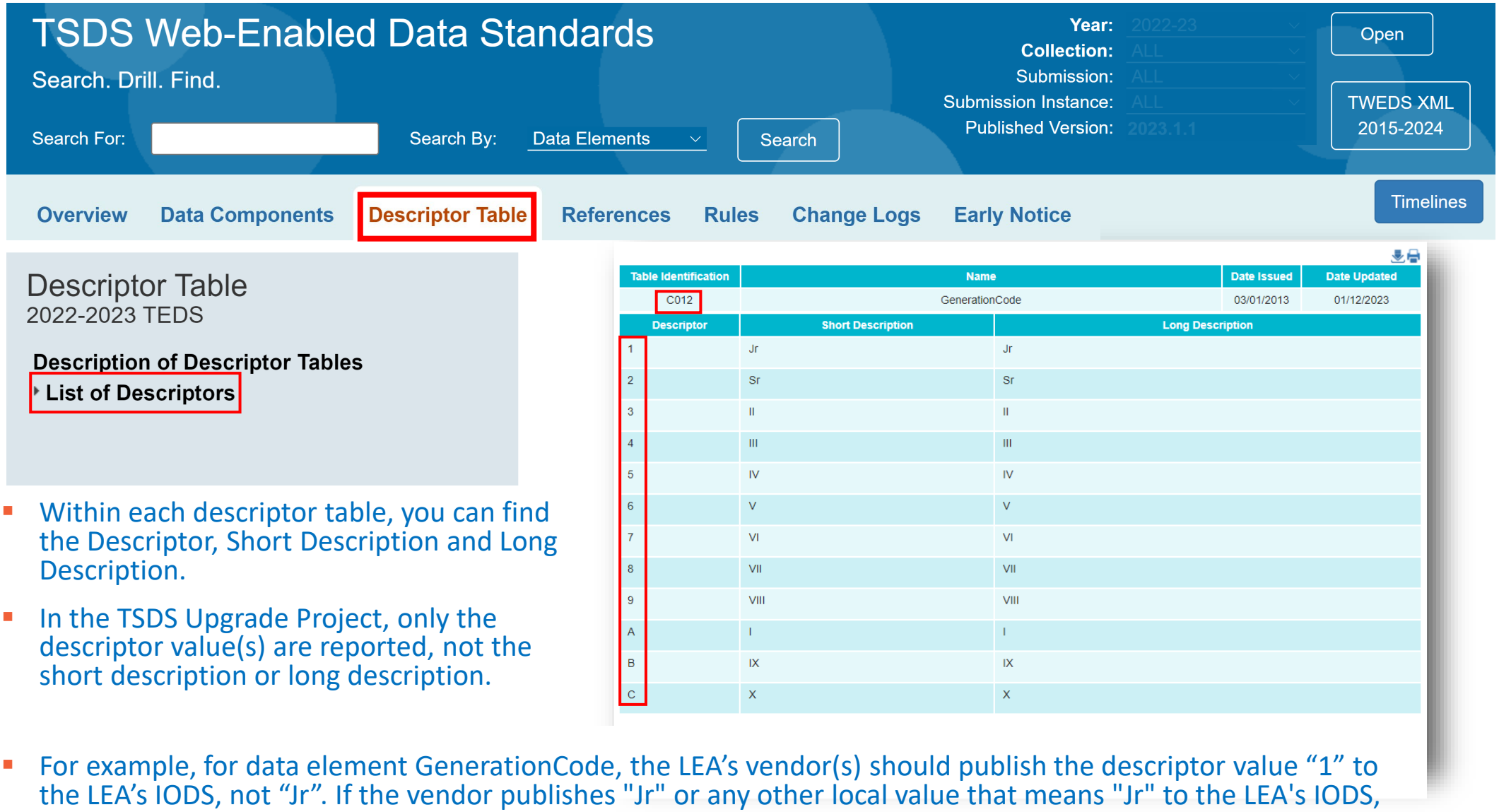
Former Data Element Name

Used in Data Collections/Submissions

- PEIMS EXYR
- PEIMS FALL
- PEIMS MDYR
- PEIMS SUMR
- CF Child Find
- CR CRF
- CR CRW
- CSW Charter School Waitlist
- ECDS ECDS-KG
- ECDS ECDS-PK

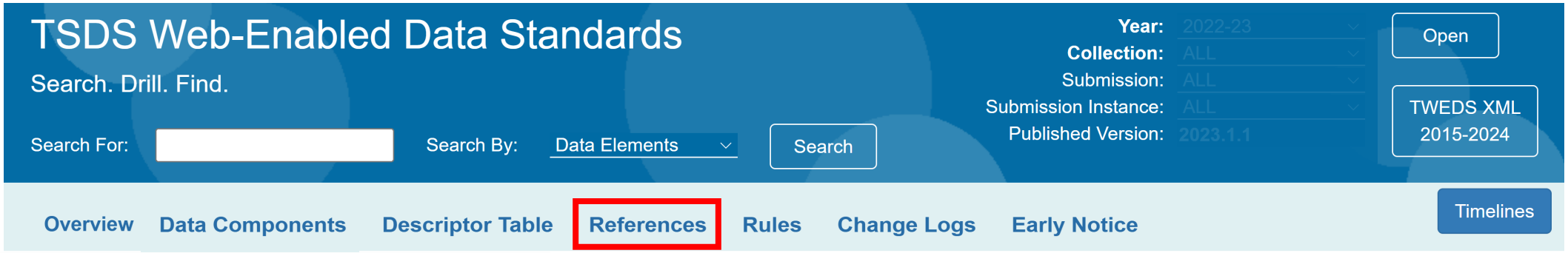
- Within each data element, you can see to which Collection/Submission the data element will be reported for TSDS state reporting.
- No longer need to use filters to determine which data elements apply to the collection.

TWEDS – DESCRIPTOR TABLE



- Within each descriptor table, you can find the Descriptor, Short Description and Long Description.
- In the TSDS Upgrade Project, only the descriptor value(s) are reported, not the short description or long description.
- For example, for data element GenerationCode, the LEA's vendor(s) should publish the descriptor value "1" to the LEA's IODS, not "Jr". If the vendor publishes "Jr" or any other local value that means "Jr" to the LEA's IODS, mapping will be required to promote the appropriate state descriptor value to TSDS.

TWEDS – REFERENCES

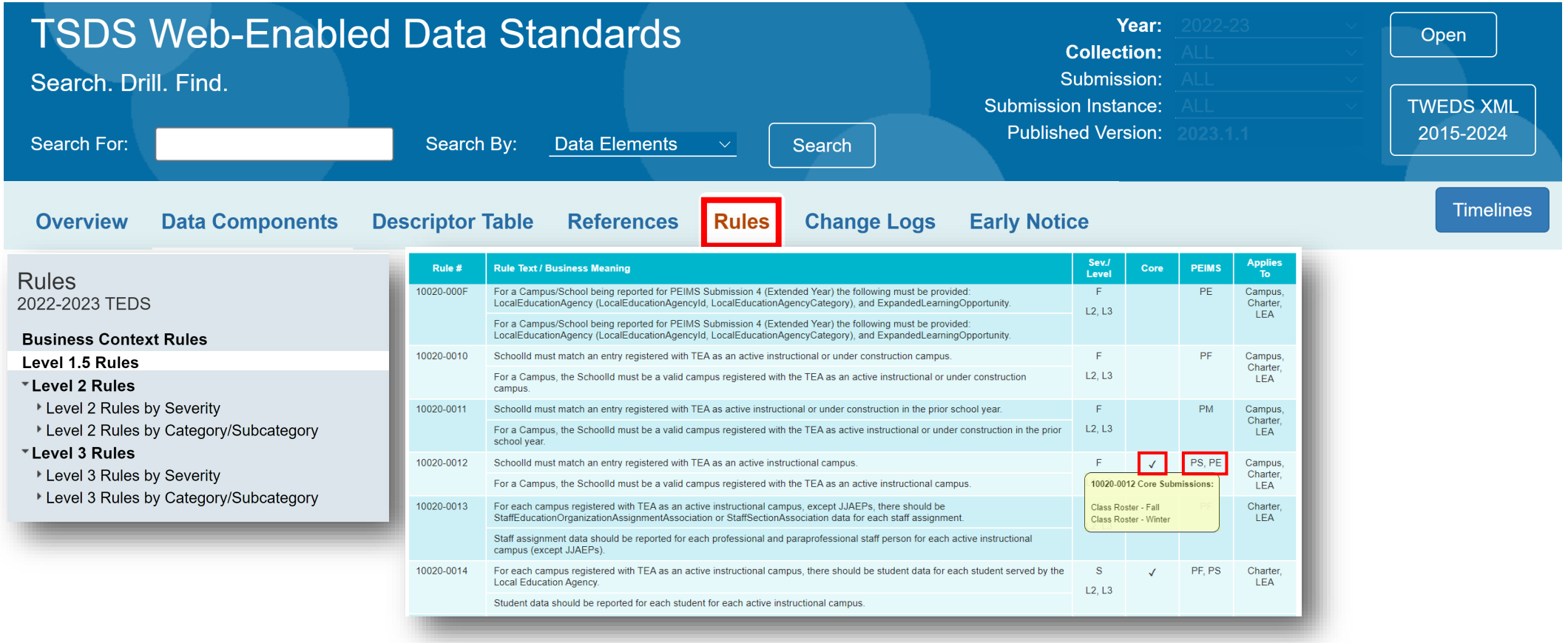


- **Technical Documentation for references:**
  - Course Codes
  - PEIMS Leaver Data
  - PEIMS Discipline Data
  - PEIMS Organization Code Reporting Guidelines
  - PEIMS Career and Technical Education (CTE) Indicator Code Calculation
  - CTE Programs of Study
  - Industry-Based Certification (IBC) Approved Vendor Crosswalk
  - TSDS Unique ID Specifications
  - Much more

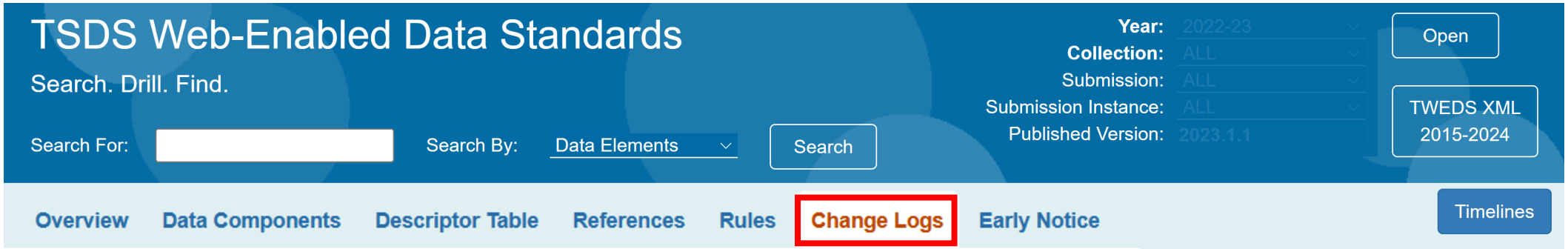


TWEDS – RULES

- In each rule, a check mark in the Core column will show the Core collections to which the rule applies.
- The PEIMS column will indicate PF = PEIMS Fall, PS = PEIMS Summer, etc.



TWEDS – CHANGE LOGS

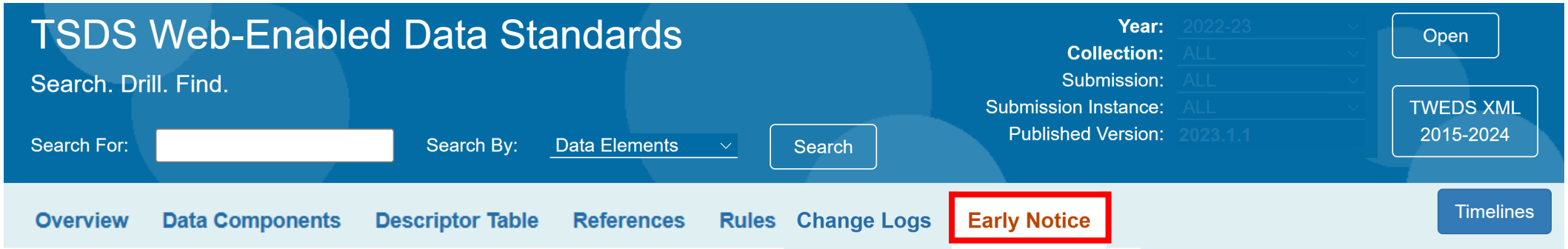


- **Cumulative Change Logs (3):**
  - Same information with some new terminology.

1. Domain, Entities and Data Element changes
2. Descriptor Table changes
3. Data Validation (rules) changes



TWEDS – EARLY NOTICE



- **Early Notice:**
  - When TEA has a notice to provide to LEAs for future data collections.





TRAINING ACTIVITIES

Demo, Troubleshooting, Knowledge Checks

TROUBLESHOOTING

Scenario 1: How do I search for the data element Behavior (E1006), formerly known as DISCIPLINARY-ACTION-REASON-CODE (E1006), in Ed-Fi 1.x?

The data element name, **DISCIPLINARY-ACTION-REASON-CODE (E1006)**, has been changed to **Behavior (E1006)** in the Ed-Fi 4.x standard. The definition remains the same and the descriptor table name is changed to **Behavior (C165)** also.

Resolution Steps:

- Navigate to the new **TWEDS** (add hyperlink)
- In TWEDS, search for the new Ed-Fi 4.x data element **Behavior (E1006).**
- From the search results, click on the data element **Behavior (E1006)** to see the details.
- In the data element details, you will find the former data element **DISCIPLINARY-ACTION-REASON-CODE (E1006)** referenced in the **Former Data Element** field.

TROUBLESHOOTING

Scenario 2: Why can't I find the data element AT-RISK-INDICATOR-CODE (E0919)?

To align with the Ed-Fi 4.x data standards, TEA combined over 20 data elements that used the **PARTICIPATION-INDICATOR-CODE (C088**) into a single data element, **StudentCharacteristic (E3063**). This new data element will use the **StudentCharacteristic (C344)** table to capture important characteristics of the student's characteristics or program participation.

Resolution Steps:

- Navigate to the new TWEDS (add hyperlink)
- Search for the data element **StudentCharacteristic (E3063)** in TWEDS.
- Within the **StudentCharacteristic (E3063)** data element, click on the link to the **StudentCharacteristic (C344)** descriptor table to see all the descriptor values for the different programs and services used to report information about a student.
- To report a student as '**At-Risk**', the LEA will need to:
  - Use the **StudentCharacteristic (E3063**) data element
  - Use the **'01'** descriptor value from the **StudentCharacteristic (C344) descriptor table** to indicate a student identified as **At-Risk.**
  - Report the **BeginDate** when the student first became At-Risk. Report the **EndDate** when the student is no longer classified as At-Risk.

DEMONSTRATION

1. Navigate to the new TSDS Web-Enabled Data Standards (TWEDS).
2. TWEDS Tabs
   - Overview
   - Data Components
   - Descriptor Tables
   - References
   - Rules
   - Change Logs
   - Early Notice
3. Search Features

KNOWLEDGE CHECK

1. **What Ed-Fi Data Standard are the Texas Education Data Standards (TEDS) being built upon for the TSDS Upgrade Project?**

   A. Ed-Fi Data Standard version 2
   B. Ed-Fi Data Standard version 3
   C. Ed-Fi Data Standard version 4
   D. None of the above

KNOWLEDGE CHECK

2. **During the 2024-2025 school year all LEAs will use the TEDS version 4.x in TWEDS to complete their TSDS submissions.**

   A. True
   B. False

KNOWLEDGE CHECK

3. The StudentCharacteristic (C344) descriptor table should be used in TEDS version 4.x to provide information on programs and/or services in which a student is participating in.

A. True
B. False

Note: StudentCharacteristic (C344) descriptor table contains data elements that were previously reported using the C088 code table. However, it is important to note that while the **StudentCharacteristic (C344**) is one way to report such information, there are other data elements/descriptor tables like HomelessStatus (C189), FosterCareType (C196), etc., which will be used to report other student characteristics.

KNOWLEDGE CHECK

4. The BeginDate (E3010) will be required to be reported for each student characteristic.

A. True
B. False

Note: BeginDate (E3010) is always required for each student characteristic. It is the first instructional day a student is assigned to the StudentCharacteristic descriptor.

KNOWLEDGE CHECK

5. **The EndDate (E3020) will only be reported for every student characteristic when the student no longer has the characteristic or no longer participates in the program.**

   A. True
   B. False

Note: EndDate (E3020) should also be reported when the student no longer has the characteristic or no longer participates in the program.



WRAP UP

Key Takeaways, Resources, and Next Steps

KEY TAKEAWAYS

The Texas Education Data Standards are being **updated to Ed-Fi version 4.x** for the TSDS Upgrade Project.

In Ed-Fi 4.x, Student Characteristics will generally be reported at the descriptor level using the **StduentChracteristic (C344**) descriptor table, but certain student characteristics will be reported outside this descriptor table.

LEAs will utilize **TEDS documentation** provided in **TWEDS** for the **Go Live year**.

TRAINING RESOURCES

- Key Terms and Definitions
- Reference Guide on how to navigate in TWEDS – Coming Soon!

NEXT STEPS



Starting July 1st, begin to utilize the new TWEDS to learn more about TEDS 4.x to understand and teach these key changes and effectively support LEAs when we Go-Live.



Plan to take additional training on:

- DMC
  - TEAL Roles (LEA & ESC)
  - Security and Administrative Features
  - Level 1.5 Filters
  - Descriptor Mapping
  - Level 2 Validations

REMEMBER: THIS PROJECT IS A TSDS UPGRADE!

Much of what you know will stay the same with some upgrades to make TSDS even better.

WRAP UP

In this training we talked about:

- Why TEA is updating TEDS for the TSDS Upgrade Project.
- The key changes for TEDS and how some student characteristics will be reported differently.
- How to navigate through TWEDS documentation to effectively support LEAs when we go live.

QUESTIONS



TSDS KEY TERMS AND DEFINITIONS

KEY TERM	DEFINITION
API Errors (i.e., Level 1 errors)	Errors that occur when attempting to publish data from a source system to the IODS.
Application (re: Manage Applications, Keys, and Secrets)	An application is an association of a claim set to a vendor product.
Application Programming Interface (API)	API is a way for two or more computer programs to communicate with each other. API is a set of protocols that enable communication and transfer of data.
Begin Date	Begin date is the first instructional day upon which something is considered to take effect.
Claim Set	A claim set is a collection of claims ("data permissions") used for API resource authorization. A resource is a composition of entities, attributes, and associations.
Resources (data)	Specific data that is associated with a Claim Set. These resources define the data the vendor can access in the IODS via API calls.
Common Type	A grouping of related data elements that are within an entity.
Course ID Filter	Non-TEDS course numbers or course numbers that do not conform to the 8****XXX convention where the asterisks are TEA-defined digits and the X's are LEA-defined digits (i.e., a local code). This appears in Level 1.5 filters in the DMC.
Data Element	The smallest unit of data defined within TEDS data standards.
Data Management Center (DMC)	The application that allows users to monitor and validate the data that has been published to their IODS and to perform system configurations.
Data Promotion	The transfer of data from the IODS into the TSDS PEIMS and Core data marts.
Data Submission	A subset of a data collection. It consists of some or all the data elements in a collection, submitted on a given deadline.
Data Validation	A check for accuracy, quality, and meaningfulness against defined rules.
Descriptor Mapping	Descriptor mapping allows the LEA to correspond local or Ed-Fi descriptors to TEDS compliant descriptors in the Data Management Center.

TSDS KEY TERMS AND DEFINITIONS

KEY TERM	DEFINITION
Descriptor Value	A descriptor value is one of a defined set of values that may be submitted for a given data element. This terminology replaces the 'code value' previously used in the TSDS system.
Descriptor Value Filter	A descriptor value that is not a valid TSDS value, and therefore cannot be reported to TEA for a data element.
Do Not Report – Staff Filter	All staff data that an organization currently has flagged as "Do Not Report" in the IODS and is not included for TSDS state data reporting.
Do Not Report – Student Filter	All student data that an organization currently has flagged as "Do Not Report" in IODS and is not included for TSDS state data reporting.
Domain	The highest-level grouping of data elements in the Ed-Fi Unifying Data Model. Domains are subdivided into entities.
Ed-Fi Alliance	A nonprofit devoted to helping every school district and state achieve data interoperability.
Ed-Fi Data Standard	A set of rules for the collection, management, and organization of educational data that allows multiple systems to share their information in a seamless, actionable way.
Education Service Center (ESC)	Regional service organizations who support local school districts and charter schools in attaining the missions, goals, and objectives set forth by TEA.
End Date	End Date is the date upon which something is considered not to be in effect.
Entity	A grouping of related data elements within a domain in the Ed-Fi Unifying Data Model.
Individual Operational Data Store (IODS)	Each organization has its own separate operational data store that houses all data that they load to the Landing Zone for submitting TSDS state reported data, and potentially local use by their LEA.
Key and Secret	The security credentials that provide access to an organization's IODS/API based upon a defined claim set.
Landing Zone	Refers to the collection of the IODS, API, DMC, and security for a given organization.
Level 1 Validations	The validations that include basic data integrity checks that occur during the process of loading data via API transactions into the IODS in the Landing Zone. Any data that fails these validations do not publish to the IODS.

TSDS KEY TERMS AND DEFINITIONS

KEY TERM	DEFINITION
Level 1.5 Filters	The data filters that identify invalid or non-TSDS data and prevent the data from being submitted promoted to TSDS. These filters include UID checks, Descriptor Value checks, Do-Not-Report flag checks, and Course ID checks.
Level 2 Validations	The business rule validations that are executed on the data submitted for TSDS state reporting. Fatal, Special Warning, and Warning validation errors do not prevent data from being published to TSDS.
Level 3 Validations	The business rules that are executed on data upon promotion to the TSDS PEIMS and CORE data marts. These validations include all Level 2 Validations, plus any additional validations required for the TSDS submissions. These validations include Fatals, Special Warnings, or Warnings. Fatal errors prevent TSDS submissions from being completed or finalized.
Local Education Agency (LEA)	A public board of education or other public authority that maintains administrative control of public schools in a city, county, township, school district, or other political subdivision.
Namespace	The namespace is a string value that identifies the data standard to which a data component belongs. There are three different namespaces that can be utilized when sending data to the IODS: TEA, Ed-Fi, and Local.
Publish	To transfer data from a source system to the IODS via the API.
Source System	A software/technology platform that is the main source of educational data. This may include a student information system, finance system, human resources system, assessment system, or any other solutions for entering and storing data.
Texas Education Agency Login (TEAL)	Single sign-on authentication providing users access to TEA applications.
Texas Education Data Standards (TEDS)	Collection of data standards, specifications, and guidance for submitting data to TSDS. These standards are based on the national Ed-Fi standards with the addition of Texas-specific extended requirements.
Texas Student Data System (TSDS)	A platform for LEAs, ESCs, and campuses to report education data to the state. This system is an integrated suite of applications that use consistent processes, vocabulary, workflows, and iconography as well as a centralized data warehouse to make the reporting process more efficient and effective.

TSDS KEY TERMS AND DEFINITIONS

KEY TERM	DEFINITION
TSDS Incident Management System (TIMS)	The support system utilized by TSDS to submit issues, monitor open incidents, and search knowledge base articles.
TSDS Web-Enabled Data Standards (TWEDS)	A web-based version of TEDS. These standards describe the data reporting requirements.
UID – Staff Filter	The data filter that identifies invalid Unique ID data for staff and appears in Level 1.5 filters in the DMC
UID – Student Filter	The data filter that identifies invalid Unique ID data for a student and appears in Level 1.5 filters in the DMC.
Uniq-ID Role	Refers to the TEAL roles needed to access the Unique ID application. These include: Uniq-ID Campus, Uniq-ID LEA, and Uniq-ID Search roles.
Unique ID Number	The 10-digit unique identifier given to every student and staff in Texas through the Unique ID system to report staff and student data through TSDS.



TSDS Upgrade Project

LEA TEAL Roles and Privileges

KEY TERMS

Data Management Center (DMC)
TEA Login (TEAL)
TSDS Incident Management System (TIMS)

You can find the definitions to these key terms and more here:

Link to Key Term Document

LEARNING OBJECTIVES

By the end of this course, the user will be able to explain:

- How to apply for the TSDSPortal application.
- How to apply for TEAL Roles and Privileges for TSDS.
- The TEAL roles & privileges that the LEA will need to access the DMC, PEIMS, Core, Unique ID, and TIMS applications.

WHY IS THIS COURSE IMPORTANT

- To provide an understanding of the TEAL roles and privileges needed for access to the DMC, PEIMS application, Core application, Unique ID application, and TIMS to better support LEAs in submitting their TSDS data.

COURSE AGENDA

GETTING STARTED
How to apply for TEAL, TSDS Portal, and Roles

Key Concepts
TEAL access for DMC, PEIMS, Core, Unique ID, and TIMS

Training Activity
Demo, Practice, Troubleshooting, Knowledge Checks

WRAP-UP
Key Takeaways, Resources, and Next Steps



GETTING STARTED

TEA Login and Apply for TSDS Portal and TEAL Roles

TEA LOGIN (TEAL)

- A single sign-on (SSO) to access TEA web applications and resources based on approved TEAL roles and privileges.
- When users request access, that request is routed for verification and approval to the designated approver at the LEA, ESC and/or TEA.



TEAL IDENTITY

USE WORK EMAIL ADDRESS AND NOT PERSONAL EMAIL ADDRESS



REQUEST ACCESS



REQUEST ACCESS TO TSDS PORTAL

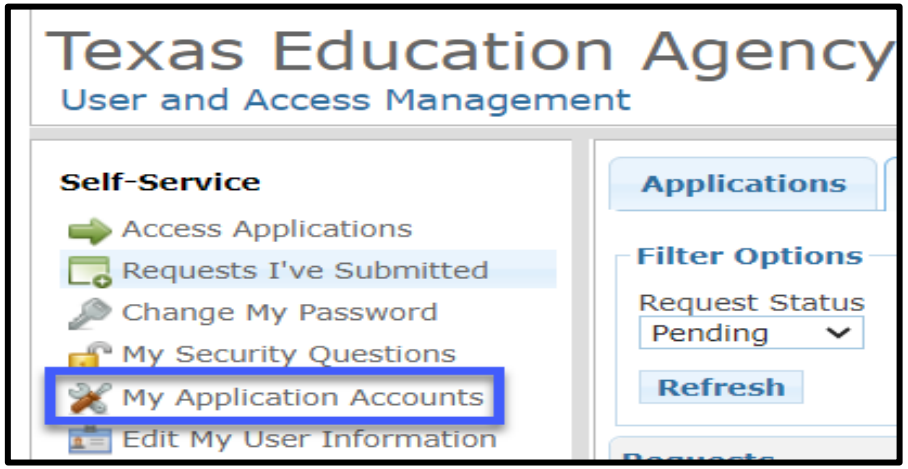
1. Log into **TEAL** with your username and password.

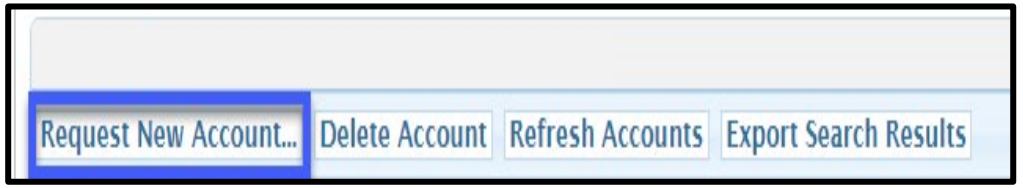
2. From the Self-Service menu, click on **My Application Accounts**.

3. From the My Accounts tab, click on **Request New Account**.

4. Click on **TSDSPortal** to add the application.

5. Apply for LEA TEAL Roles





Application ID	Application Name
TSDSPortal	Texas Student Data System Portal

Note: For additional assistance with requesting access to the TSDSPortal application, click **here**.

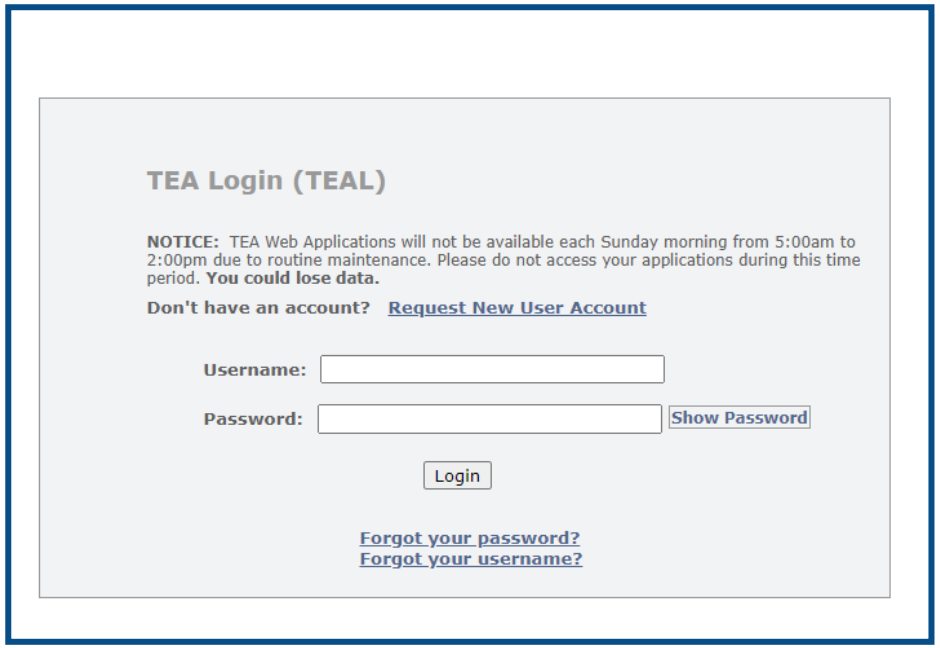
TEAL GUIDANCE

- For the 2024-2025 school year, all LEAs and ESCs will need to apply for the appropriate **TEAL DMC roles**.
- TEA will not migrate over any previous TEAL role and privileges for those that participated in the 2023-2024 Parallel Submission.
- Existing access to the TSDS Portal application for PEIMS, CORE, Unique ID, and TIMS will not be impacted. LEAs and ESCs should **verify** their **current roles** and **privileges** as a best practice.

APPLY FOR TEAL LEA ROLES

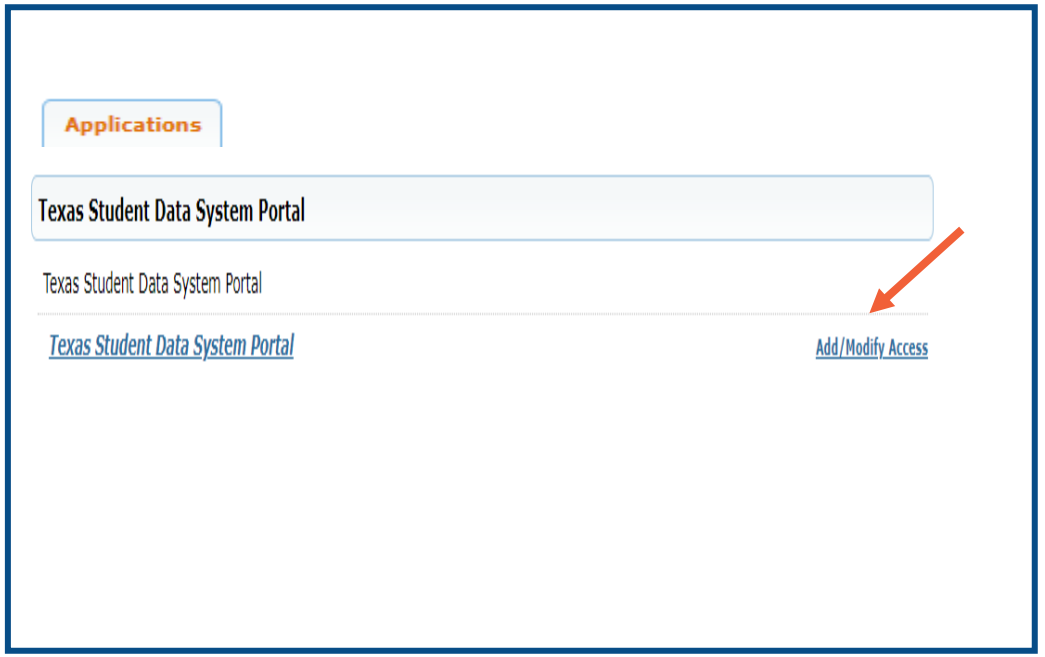
STEP 1:

Log into **TEAL** with your username and password.



STEP 2:

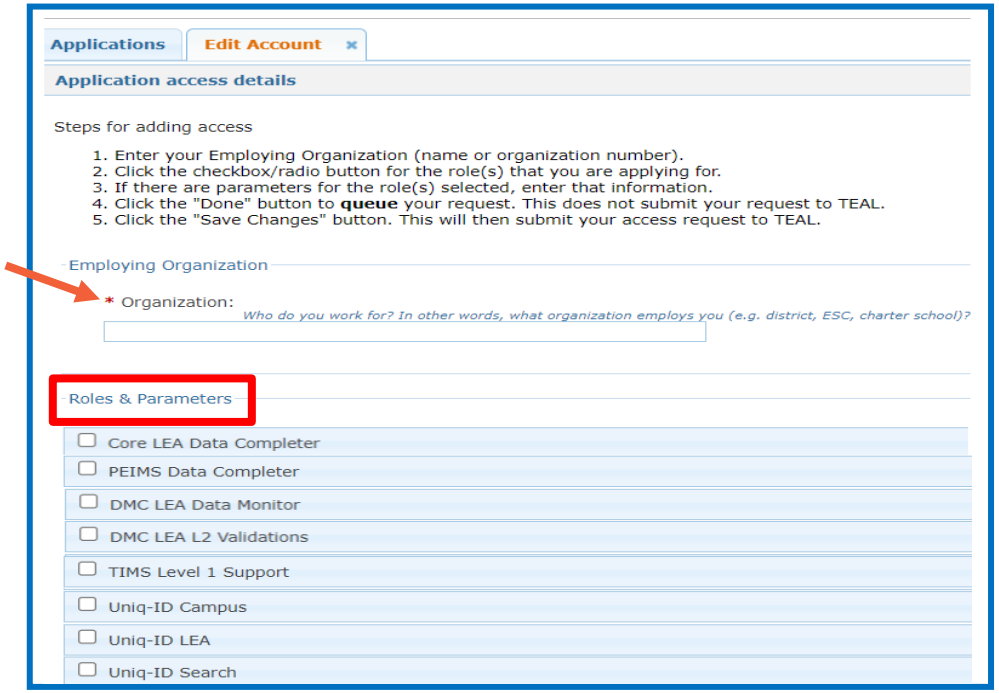
Select **Add/Modify Access** in the Texas Student Data System Portal.



APPLY FOR TEAL LEA ROLES

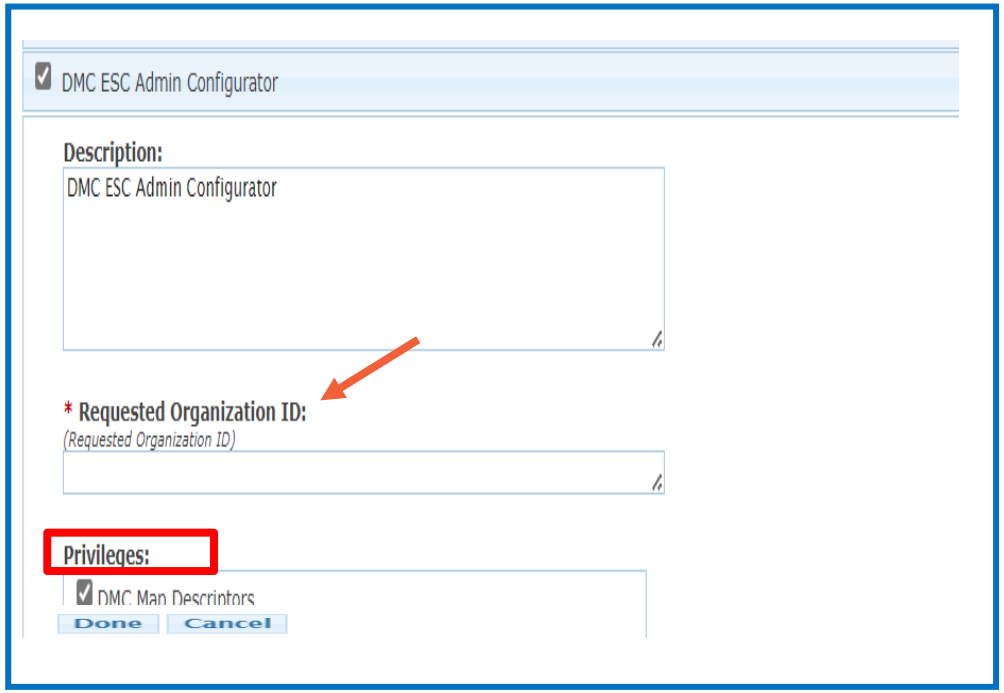
STEP 3:

Enter your **Employing Organization** and select the **TEAL LEA** role(s).



STEP 4:

Enter the **Requested Organization** in the *Requested Organization ID* field and click **Done**. Click **Save Changes**.



TIPS FOR THE APPROVAL PROCESS

- When applying for the TEAL and TSDS Portal:
  - Ensure you are applying under the TSDS Portal application.
  - Ensure you are applying with an LEA email address.
  - Ensure you are not requesting overlapping roles.
    - For example, when requesting PEIMS roles, you do not need the PEIMS Submitter, PEIMS Sched/Promoter, or PEIMS Data Viewer roles if requesting PEIMS Completer.
    - For example, when requesting Core roles, you do not need the Core Promoter, or Core Viewer, if requesting Core Completer.



KEY CONCEPTS

TEAL DMC, PEIMS, Core, Uniq-ID, and TIMS Roles

TEAL ROLE PERMISSIONS

Directions: To learn more about the privileges for each TEAL role listed in slides 14-18, log in to TEAL, click on TSDS Portal, click on the Support tab, and follow the instructions below to access KB Article TSDSKB-606.

TIMS Level 1 Support

1. Click the Log in to TIMS easy button.
2. Then click here.

TSDS User

1. Click on the Search Knowledge Base easy button.
2. Type TSDSKB-606 in the search bar.
3. Click on the article name to access.

LEA TEAL ROLES FOR THE DMC

ATTENTION: These are the NEW TEAL Roles for the TSDS Upgrade Project.

TEAL ROLE:	PRIVILEGES:
▪ DMC LEA Data Monitor	▪ DMC L1.5 Filters Access ▪ DMC Map Descriptors ▪ DMC Search Data ▪ DMC Summary Access to LEA Data
▪ DMC LEA L2 Validations	▪ DMC Run Validations ▪ DMC Summary Access to LEA Data ▪ DMC View Validation ▪ Select additional privileges based on your job responsibilities.
▪ DMC LEA Technical	▪ DMC Manage Key/Secret

LEA TEAL ROLE FOR TIMS

ATTENTION: This is an existing TEAL Role with new DMC privileges.

TEAL ROLE:

- TIMS Level 1 Support

PRIVILEGES:

- Old Privileges
  - Select additional privileges based on your job responsibilities.
- New Privileges
  - DMC Drill Down Access to LEA Data
  - DMC View Validations

LEA TEAL ROLES FOR PEIMS

ATTENTION: These are existing TEAL Roles and are not changing.

TEAL ROLE:

- PEIMS Campus View Data
- PEIMS Campus Submitter
- PEIMS Campus Approver
- PEIMS LEA View Data
- PEIMS Data Sched/Promoter
- PEIMS Data Submitter
- PEIMS Data Completer
- PEIMS Data Approver

PRIVILEGES:

- Select privileges for the appropriate submissions and submission data.

NOTE: These are the available PEIMS roles from which you will choose just one role. It is important to note that each role has privileges that provide you with specific access to your organization's PEIMS data.

LEA TEAL ROLES FOR CORE

ATTENTION: These are existing TEAL Roles and are not changing.

TEAL ROLE:

- Core LEA Data Viewer
- Core LEA Data Promoter
- Core LEA Data Completer
- Core LEA Data Approver

PRIVILEGES:

- Select privileges for the appropriate submissions and submission data.

NOTE: These are the available Core LEA roles from which you will choose. It is important to note that each role has privileges that provide you with specific access to your organization's Core data.

LEA TEAL ROLES FOR UNIQUE ID

ATTENTION: These are existing TEAL Roles and are not changing.

TEAL ROLE:	PRIVILEGES:
▪ Uniq-ID Campus	▪ Uniq-ID School Administrator ▪ View Campus Load Reports
▪ Uniq-ID LEA	▪ Uniq-ID District
▪ Uniq-ID Search	▪ Uniq-ID Search User



tsds texas student data system

TRAINING ACTIVITIES

Demo, Practice, Troubleshooting, Knowledge Checks

DEMONSTRATION

1. Log in to your TEAL account.
2. Navigate to the Texas Student Data System Portal.
3. Click **Add/Modify**.
4. Review the LEA TEAL Roles and Privileges.
5. Request the Roles and Privileges needed for your job responsibilities.
6. Click **Done**.
7. Click **Save Changes**.

NOTE: The Reference Guide is a resource that provides step-by-step instructions for applying for TEAL roles and privileges.

Link to reference guide

PRACTICE EXERCISE

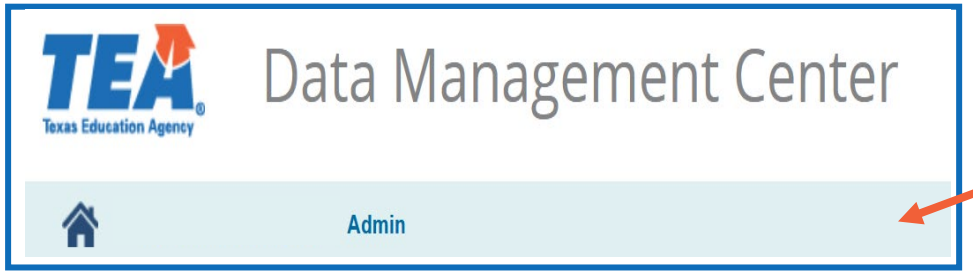
Task 1: Submit a TEAL Request for access to TSDS Portal.

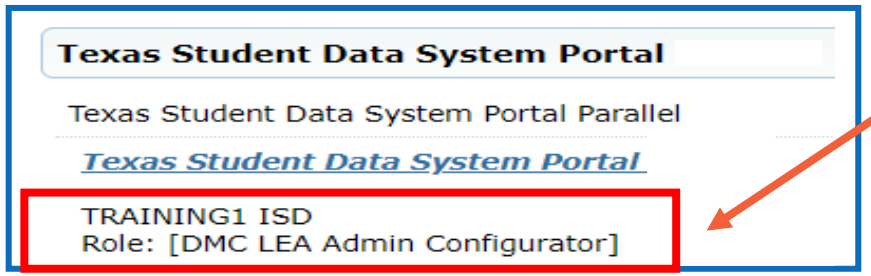
Task 2: Apply for TEAL roles based on job responsibilities.

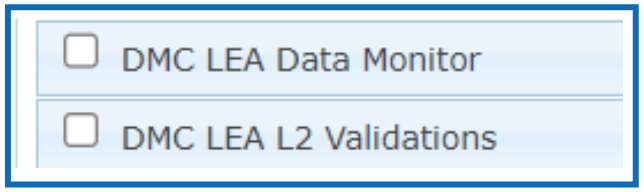


TROUBLESHOOTING

Scenario 1: Why can I not see my L1.5 filters or my L2 validations?







Resolution Steps:

- Review your TEAL roles and privileges.
  - Ensure that the DMC LEA Data Monitor and DMC LEA L2 Validations are listed roles for your organization.
- If your roles are not present, then submit a new request.
- If your roles are present, then submit a TIMS incident.

TROUBLESHOOTING

Scenario 2: Why has my TEAL request been denied?

From: TEAL.Admin@tea.state.tx.us [mailto:TEAL.Admin@tea.state.tx.us]
Sent: Friday, April 26, 2024 10:05 AM
To: Wayne Curry
Subject: TEAL - Application Access Request Denied

Your request for access to TEAL for the listed organization and access below has been denied.

Application Requested: **Texas Student Data System Portal**
Employing Organization 701603 - Learning Test ISD
Organization Requested: 701603 - Learning Test ISD

Access Requested:

- Role Core ESC Data Viewer - 701603

Access has been denied for the following reason:

David Butler: Rejecting: The Core ESC Data Viewer role is restricted to the Education Service Center level. You need to request the Core LEA Data Viewer, Core LEA Data Promoter, Core LEA Data Completer, or Core LEA Data Approver.

Resolution Steps:

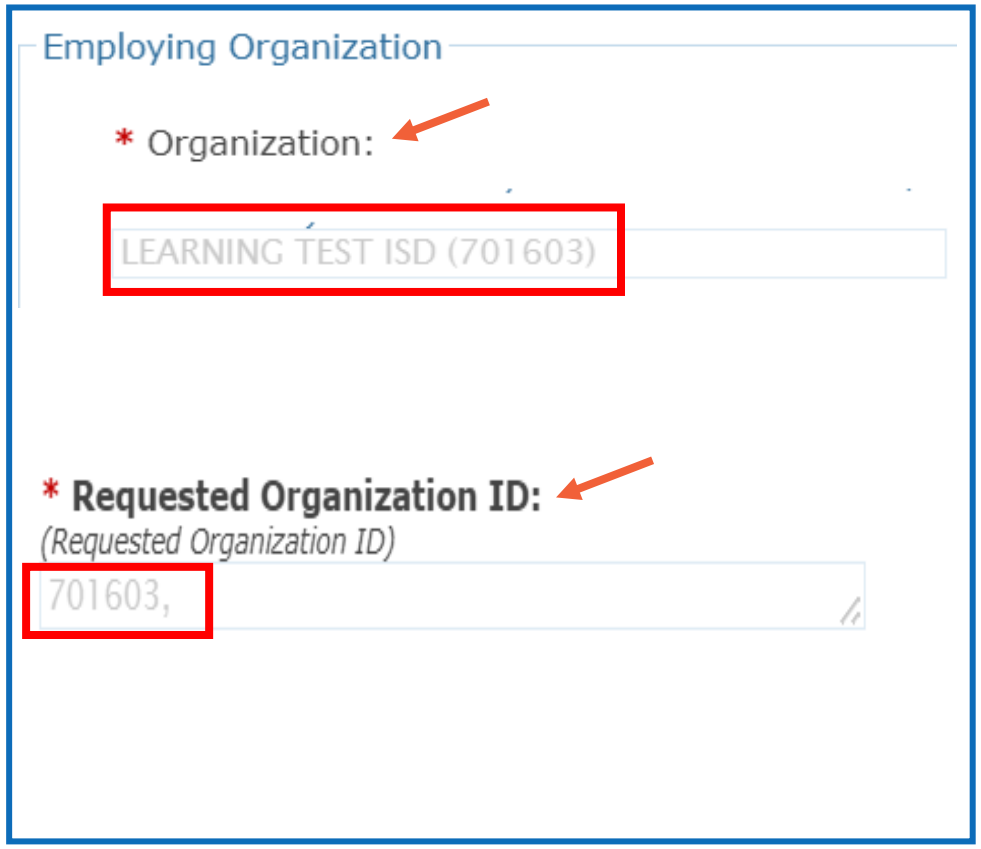
1. Review the email from TEAL Admin.
2. Review the message that provides details as to why your TEAL request was denied.
3. Complete any actions steps per the denial message and submit a new request.

Things That May Cause Denied TEAL Requests

- Using a personal email account. **MUST** use work email account.
- Requesting roles that are not intended for your organization level (i.e., LEA, ESC, or TEA).
- Organization TEAL Approver denies your request. Please see your TEAL approver comments for details.

TROUBLESHOOTING

Scenario 3: Why can I not Add/Modify my TEAL roles and privileges?



Resolution Steps:

1. Log out of TEAL.
2. Clear browser cache.
3. Log back into TEAL.
4. To the right of the Texas Student Data System Portal hyperlink, click **Add/Modify**.
5. If still unable to see or change your role, try a different browser.
6. If still unable to see or change your role request, submit a TIMS incident.

*Recommended browser is Edge.

KNOWLEDGE CHECK

1. **Which application is needed for the LEA to access their data in their IODS?**

   A. TIMS application
   B. PEIMS application
   C. DMC application
   D. Core application

KNOWLEDGE CHECK

2. Which TEAL role is not needed for TSDS Portal?

A. DMC LEA Technical
B. TIMS Level 2 Support
C. DMC LEA Data Monitor
D. DMC LEA L2 Validations

KNOWLEDGE CHECK

3. **When applying for Core access to the TSDS Portal, you must select the privileges for each collection for which you are responsible.**

   A. True
   B. False

KNOWLEDGE CHECK

4. When applying for PEIMS access to the TSDS Portal, you must select all PEIMS TEAL roles available.

A. True
B. False

Note: Individuals should apply for the PEIMS roles based upon their current responsibilities. If an individual applies for the **PEIMS Data Completer** role, it will include all functionality. They would not need to apply for the PEIMS LEA View Data, PEIMS Data Submitter, nor the PEIMS Data Sched/Promoter roles.



WRAP UP

Key Takeaways, Resources, and Next Steps

KEY TAKEAWAYS

For Go-Live, users will need to request and apply for new TEAL roles and privileges.

LEAs should only request roles associated with their organization level and their job responsibilities.

LEAs should utilize the training resources and guidance provided to submit their requests in TEAL.

LEAs should monitor the status of their requests and submit a TIMS incident for any assistance.

TRAINING RESOURCES

- Key Terms and Definitions
- Quick Reference Guide for TEAL LEA Roles and Privileges

NEXT STEPS

Apply for TEAL Roles

- Apply for the necessary TEAL roles and privileges to access the Data Management Center (DMC) and TSDS applications.
  - **TSDSKB-209** – TEAL: Adding a Role
  - **TSDSKB-606** – TEAL: TEAL Roles for TSDS Collections

Monitor Progress

- Utilize the following Knowledge Base (KB) articles for information regarding the TEAL role approval process and how to check the status of your request(s).
  - **TSDSKB-9** TEAL: Lookup Status on TEAL Role Requests
  - **TSDSKB-185** TEAL: Role Approval Process

WRAP UP

In this training we talked about:

- How to apply for the appropriate TEAL roles in the TSDS Portal.
- The TEAL roles needed to participate in Go-Live for TSDS.
- Where to find helpful resources to ensure proper access.

END OF COURSE SURVEY



QUESTIONS

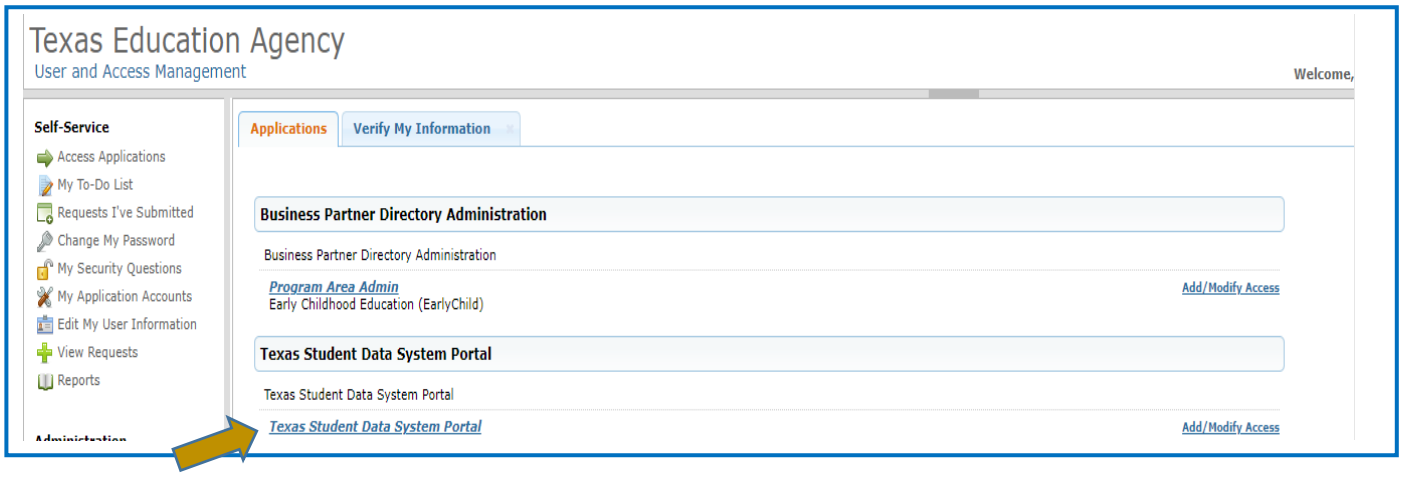


LEA TEAL Roles and Privileges Reference Guide

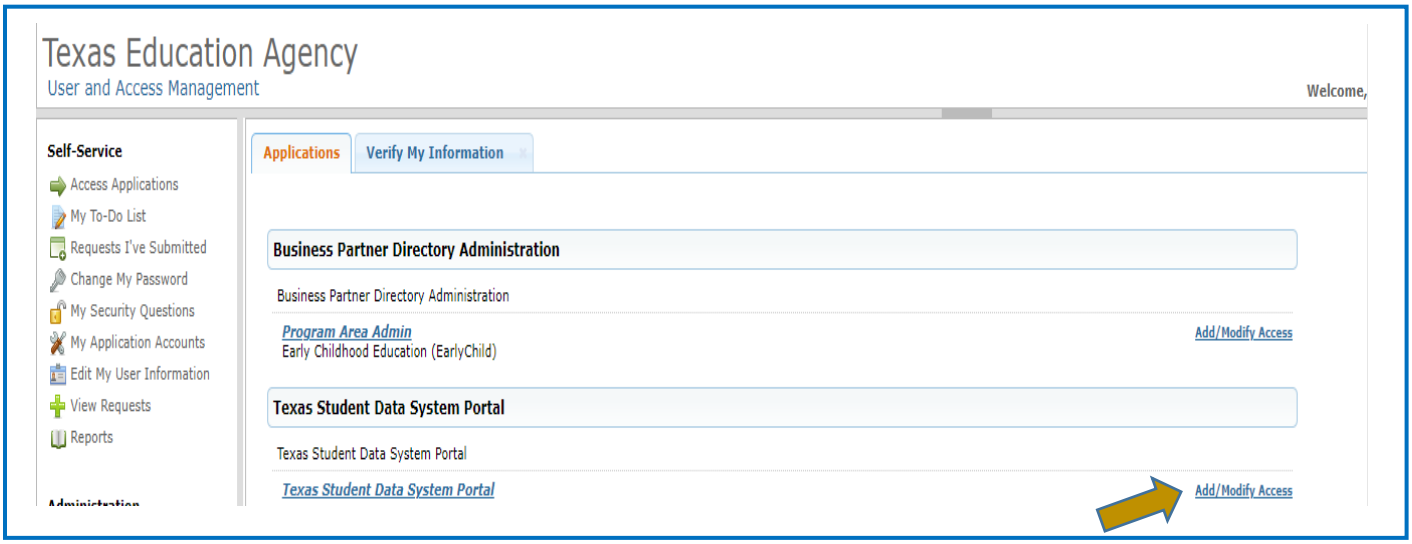
Target Audience: LEA Staff who need access to TSDS applications.

Purpose: This guide provides a step-by-step guide of the TEAL roles for LEA Staff who will need access to the DMC, PEIMS, Core, Unique ID, and TIMS applications.

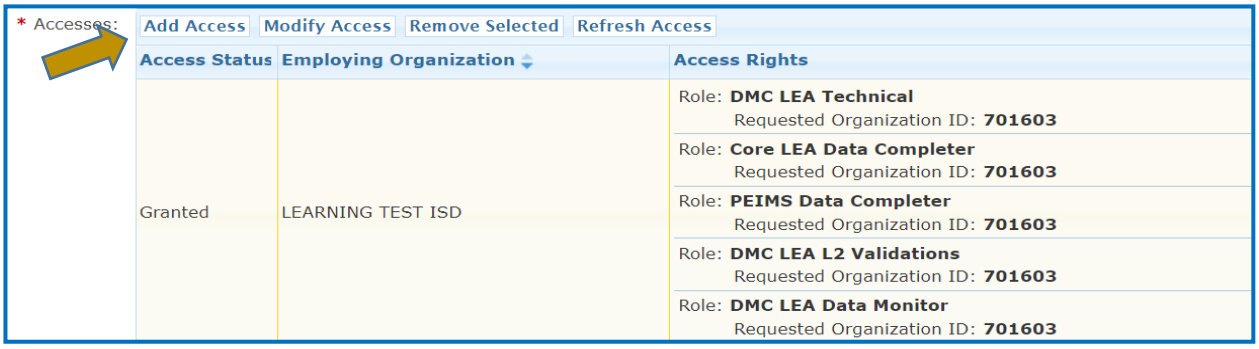
1. Log in to TEAL and navigate to the **Texas Student Data System Portal**.



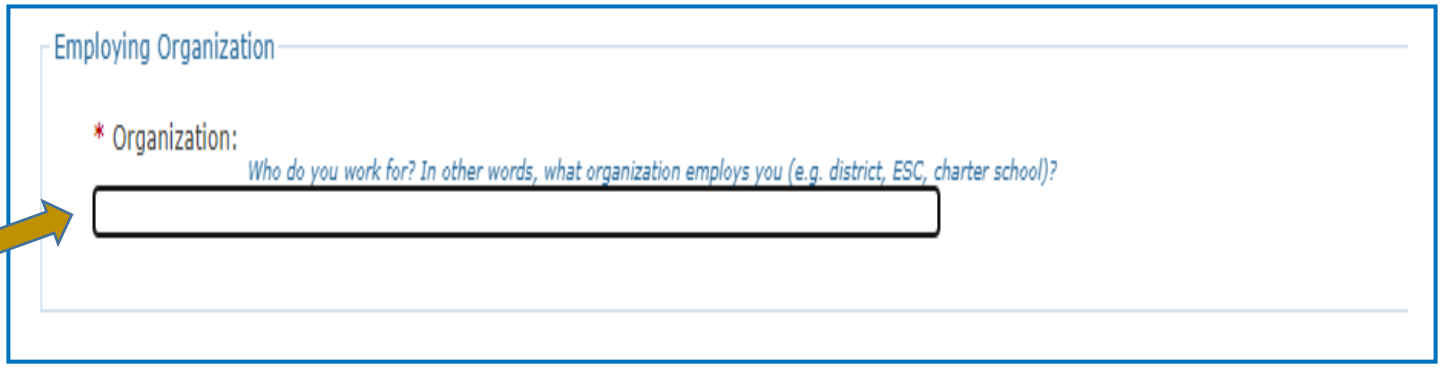
2. Click **Add/Modify Access** to request new TEAL roles and privileges.



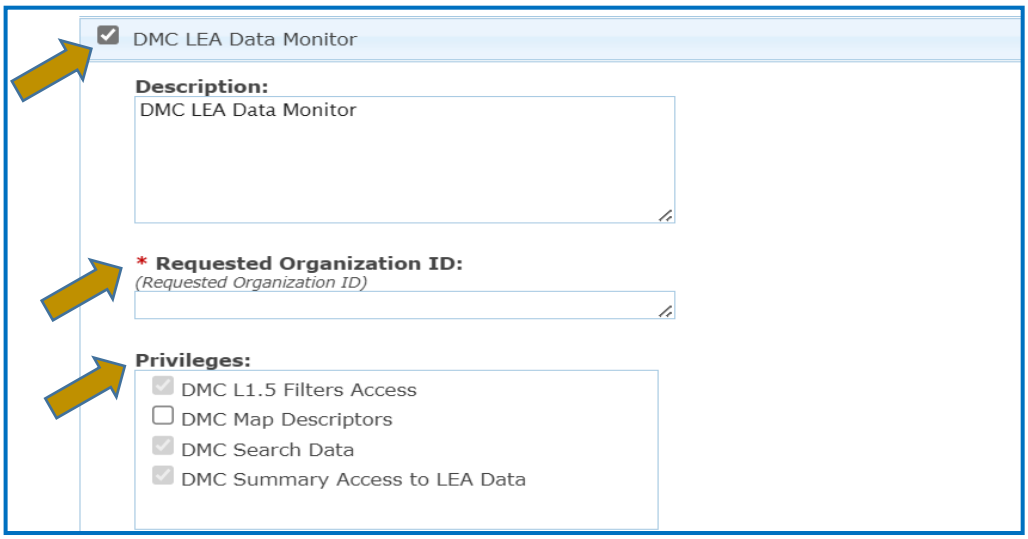
3. Click **Add Access**.



4. Enter your LEA's County District Number (CDN) in the **Organization** field.

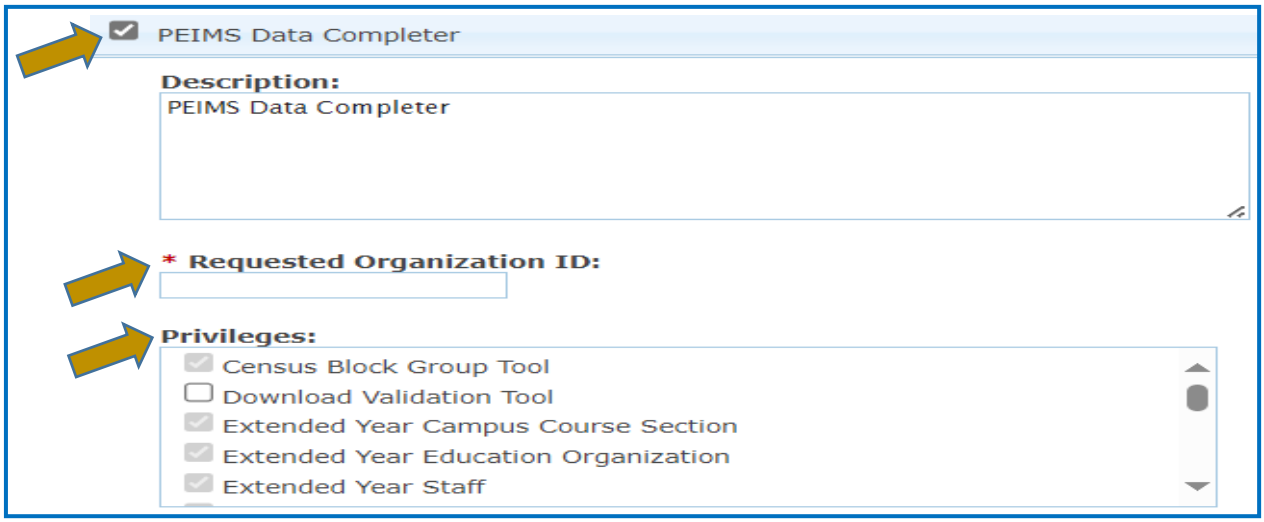


5. For LEA Staff request one or more the following roles as needed for your job responsibilites:
    a. *DMC Technical, DMC LEA Data Monitor, or DMC LEA L2 Validations*:
        - Check **the respective DMC role(s)**, enter your LEA's CDN in the **Requested Organization ID** field, select all the privileges you need based on your job responsibilities.



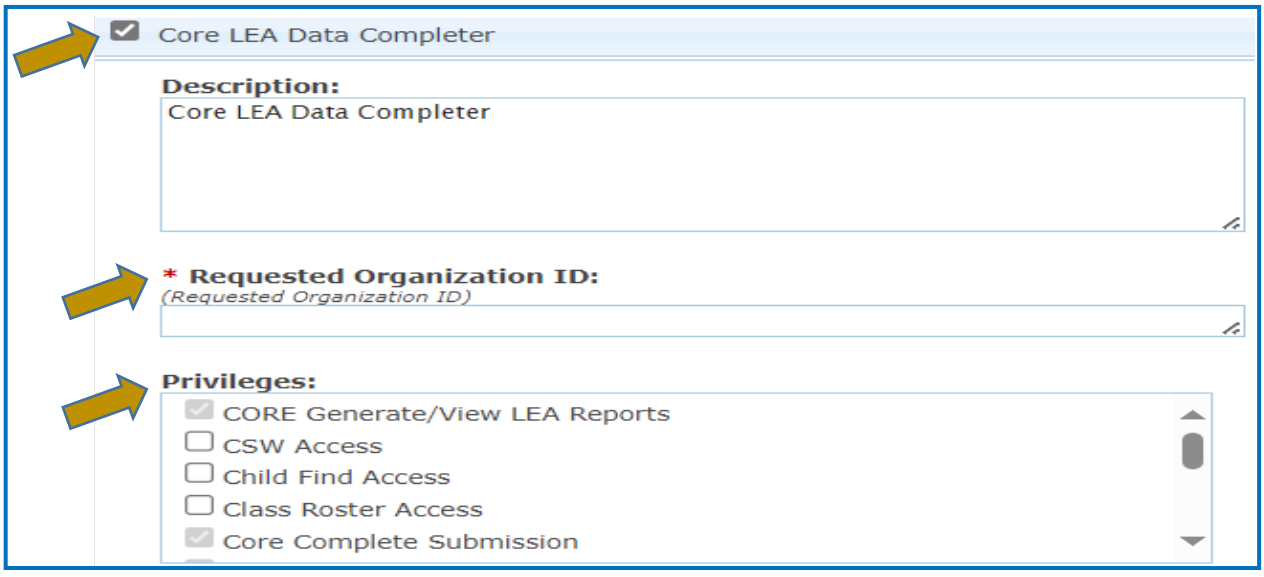
b. *PEIMS Campus View Data, PEIMS Campus Submitter, PEIMS Campus Approver, PEIMS LEA View Data, PEIMS Data Sched/Promoter, PEIMS Data Submitter, PEIMS Data Completer, or PEIMS Data Approver (**Superintendents ONLY**)*:

- Check **the respective PEIMS role** (***choose only one***), enter your LEA's CDN in the **Requested Organization ID** field, select all the privileges you need based on your job responsibilties.



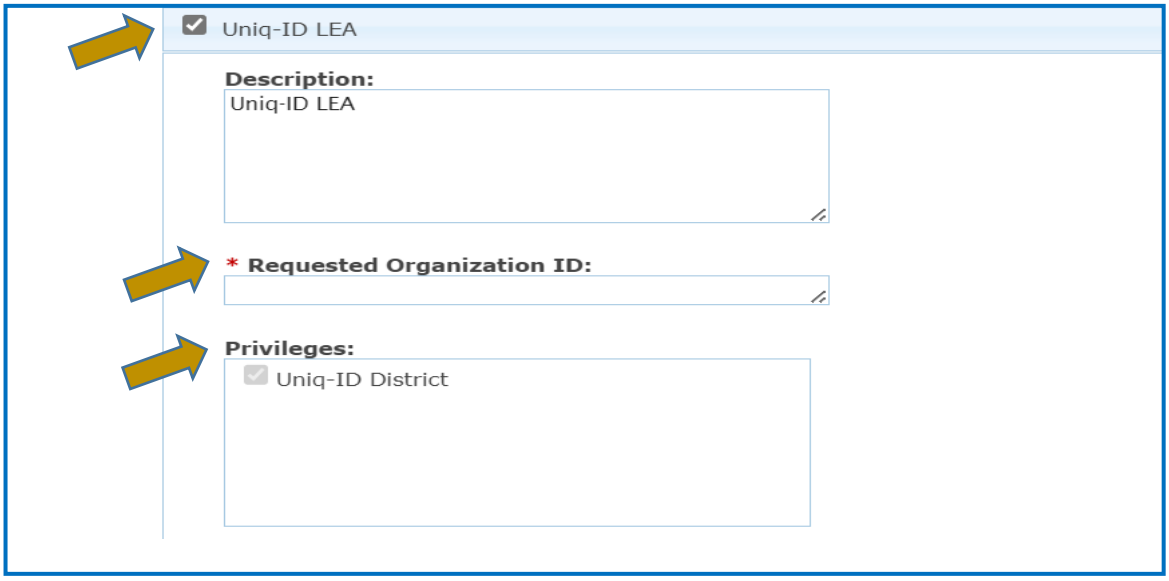
c. *Core LEA Data Viewer, Core LEA Data Promoter, Core LEA Data Completer, Core LEA Data Approver*:

- Check **the respective Core roles,** enter your LEA's CDN in the **Requested Organization ID** field, select all the privileges you need based on your job responsibilties.



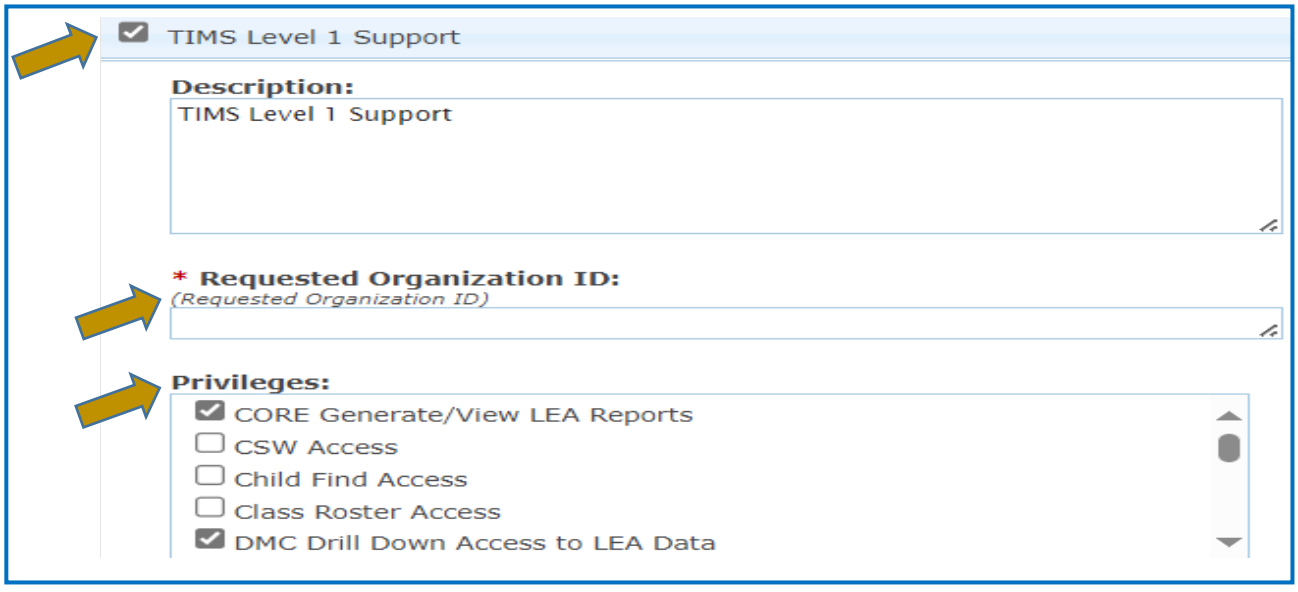
d. *Uniq-ID Campus, Uniq-ID LEA, Uniq-ID Search* :

- Check **the respective Uniq-ID role(s)**, enter your LEA's CDN in the **Requested Organization ID** field, select all the privileges you need based on your job responsibilities.
- Note: For Uniq-ID Search, you do not have to enter your CDN for **Requested Organization ID**.

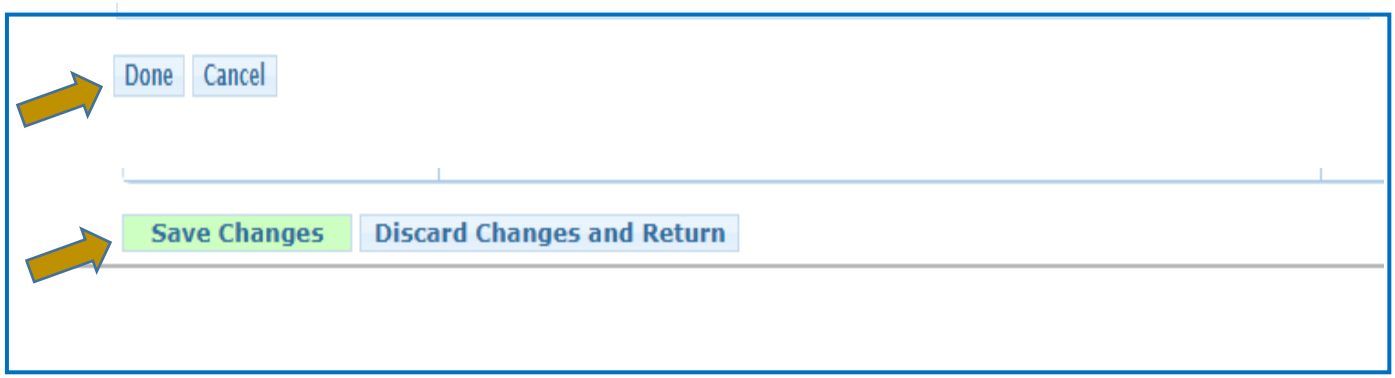


e. TIMS Level 1 Support:

- Check **the TIMS Level 1 Support role**, enter your LEA's CDN in the **Requested Organization ID** field, select all the privileges you need based on your job responsibilties.



6. When you have selected all the new roles and privileges needed for your job responsibilities, click **Done** and then click **Save Changes**.





TSDS Upgrade Project

Level 1.5 Filters

KEY TERMS

Application Programming Interface (API)
Course ID
Data Management Center (DMC)
Descriptor Value
Do Not Report
Filter
Individual Operational Data Store (IODS)
Landing Zone
Level 1.5 Filters (L1.5)
Source System
Unique ID

You can find the definitions to these key terms and more here:

Link to Key Term Document

LEARNING OBJECTIVES

By the end of this course, the user will be able to explain:

- How to access and apply for the TEAL LEA Data Monitor role.
- Level 1.5 (L1.5) filters in the Data Management Center (DMC).

WHY IS THIS COURSE IMPORTANT

- To understand how to:
  - Access the DMC
  - **View and manage Level 1.5 filters**
  - Ensure data that is intended to be loaded to TSDS is accurate and complete

COURSE AGENDA

GETTING STARTED
Key Terms and Apply for DMC LEA Data Monitor Role

KEY CONCEPTS
Level 1.5 Filters

Training Activity
Demo, Practice, Troubleshooting, Knowledge Checks

WRAP-UP
Key Takeaways, Resources, and Next Steps



GETTING STARTED

Apply for DMC LEA Data Monitor Role

TEAL ROLE AND FUNCTIONALITY



LEA TEAL ROLE

- **LEA Technical Administrator:**
  - DMC LEA Data Monitor



KEY FUNCTIONS

- **Administrator Functionality:**
  - View and Manage Level 1.5 Filter Details

REQUESTING TEAL ACCESS

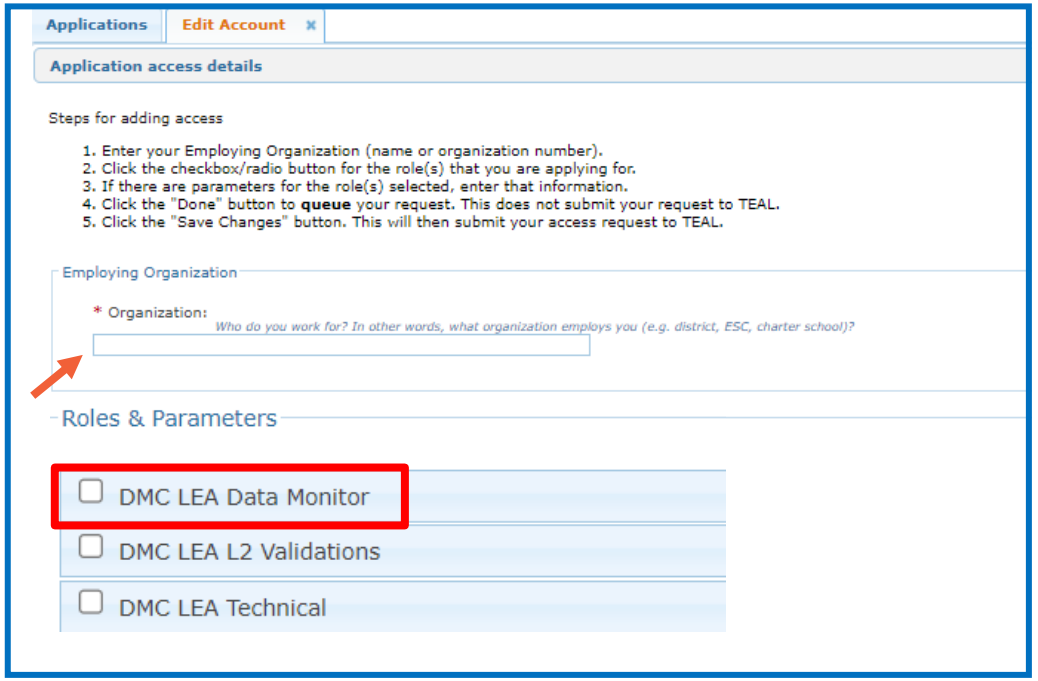
Please refer to the LEA TEAL Roles and Privileges training material if you need more information on:

- Requesting Access to TSDS Portal.
- Applying for TEAL Roles.

APPLY FOR DMC LEA DATA MONITOR ROLE

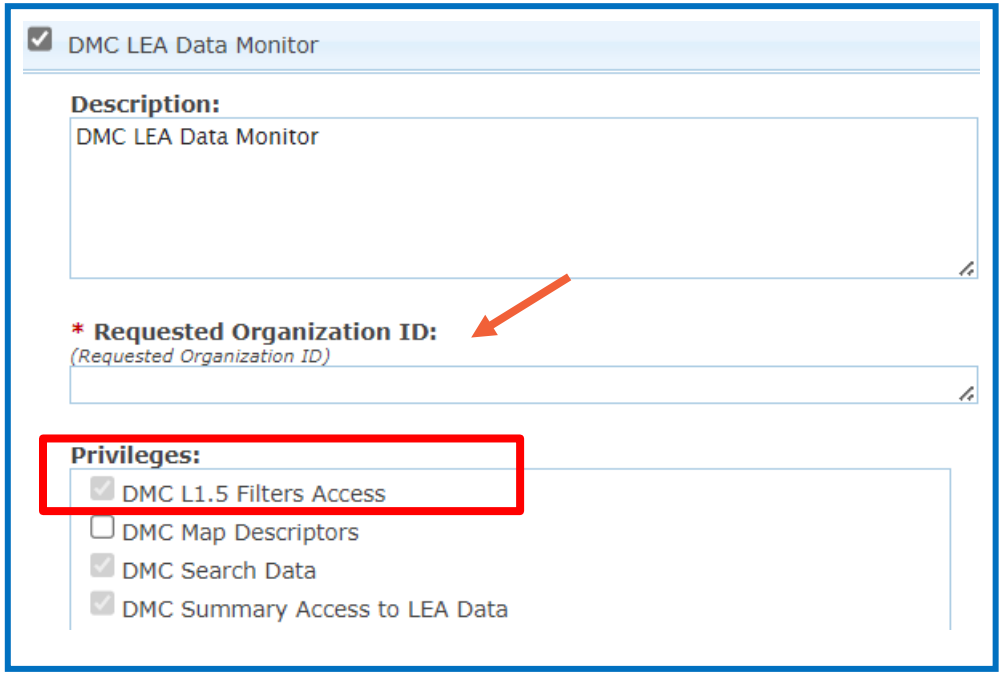
STEP 1:

Enter your **Employing Organization** and select the **DMC LEA Data Monitor** role.



STEP 2:

Enter the **Requested Organization** in the *Requested Organization ID* field and click **Done**. Click **Save Changes**.





KEY CONCEPTS

Level 1.5 Filters

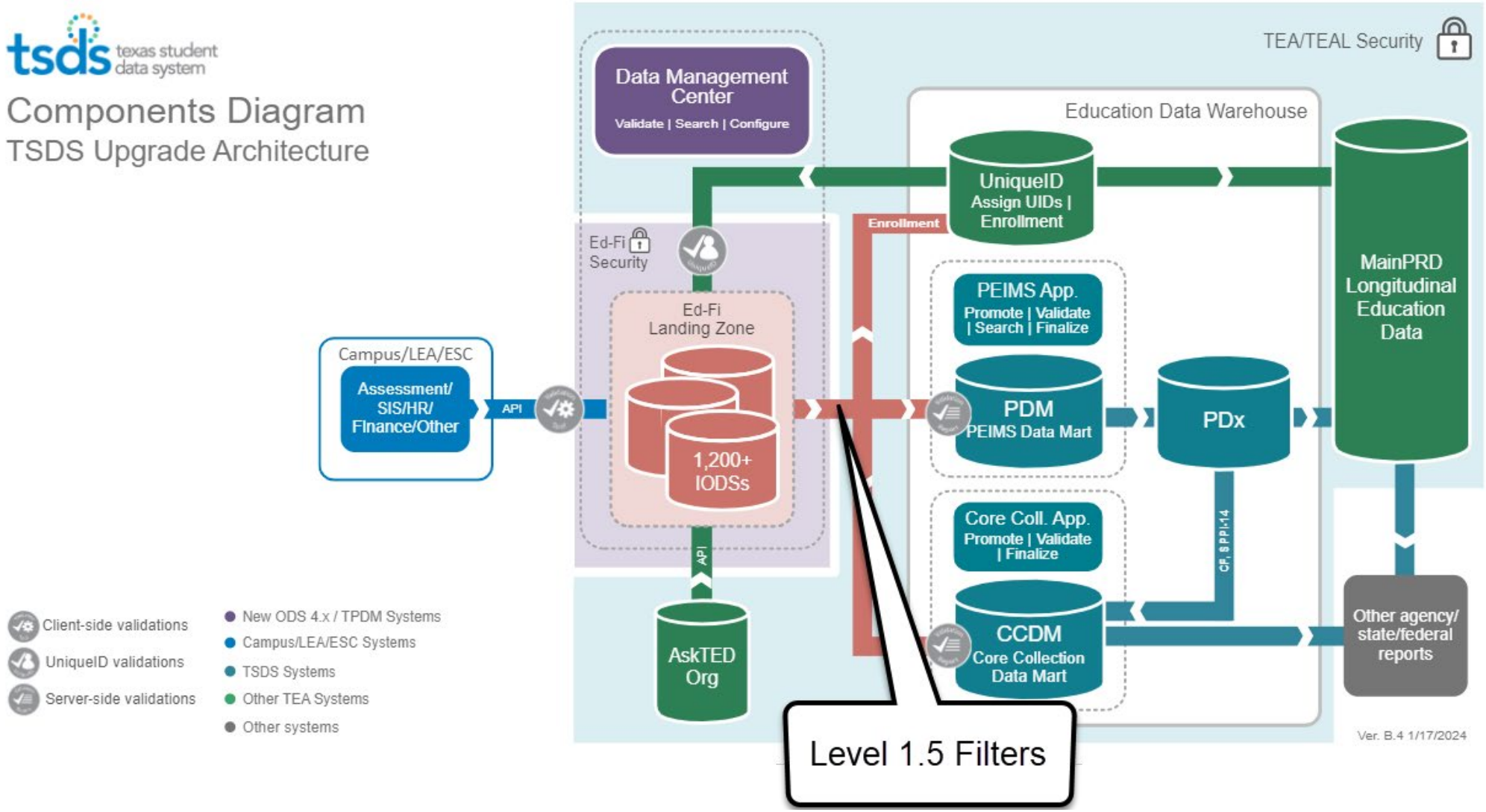
WHAT ARE LEVEL 1.5 FILTERS?

- Level 1.5 filters are a series of data validation checks that occur against the data loaded to the IODS in the Landing Zone. They include the following:
  - Validation of Course IDs
  - Validation of Descriptor Values
  - Validation of Unique IDs
  - Data that has been designated as “Do Not Report”

- Any data that is identified as a Level 1.5 filter result will not be made available to promote to the PEIMS and CORE data marts.
  - The LEA will be responsible for verifying or resolving any data displayed in the View L1.5 Filter Details within the DMC application.

NOTE: Not all data will generate a Level 1.5 filter. You may receive an onscreen message that states ‘**No Data to Display**’ if the LEA has no Level 1.5 filters.

LEVEL 1.5 FILTERS



TYPES OF LEVEL 1.5 FILTERS

- There are six different types of Level 1.5 filters:
  - **Course ID:** non-TEDS CourseCode values, such as local codes
  - **Descriptor Value:** non-TEDS descriptor values; either Ed-Fi or locally-defined values
  - **Do Not Report – Staff** and **Do Not Report – Student:**
    - This is triggered when data element StaffDoNotReportTSDS (E3069) is reported for a staff member or StudentDoNotReportTSDS (E3009) is reported for a student as 'true'.
    - All data related to that staff member or student will not move to TSDS.
  - **UID – Staff** and **UID – Student:**
    - Unique IDs that are not found in the Unique ID application or valid Unique IDs where the major demographic data does not match what is in the Unique ID application.

WHAT TO DO WITH LEVEL 1.5 FILTERS

- Not all Level 1.5 filters may need to be “corrected”.
  - Data that is not intended for TSDS can be marked as ‘**Verified**’.
  - Marking a filter as ‘Verified’ **does not change** the data **or delete** it from the IODS.

Type	Rule	Message	Verified
UID - Student	40100-0099 : StudentUId must match an entry in the TSDS Unique ID system.	**Entity:** PriorYearLeaver **Error Data:** **StudentUId:** 497048608 **Identifying Info:** LocalEducationAgencyId: 701603, StudentUId: 497048608, LocalStudentId: 985933816, LastSurname: CECIL, FirstName: BLOOME, BirthDate: 1993-08-10	☑

  - When using the **Search Criteria**, users can select to display filters by:
    - **All –** all filters, both verified and unverified results
    - **Verified –** filters that have been verified
    - **Unverified** – filters that have not been verified

WHERE TO CORRECT LEVEL 1.5 FILTERS

Correct in source system

- Course ID
- Do Not Report – Staff
- Do Not Report – Student

Correct in source system or use DMC application

- Descriptor Value

Correct in source system

- UID – Staff
- UID – Student

(Invalid UIDs)

Correct in source system or Unique ID application

- UID – Staff
- UID – Student

(Demographic issues with UIDs)

Note: Not all L1.5 filters need to be corrected.



tsds texas student data system

TRAINING ACTIVITIES

Demo, Practice, Troubleshooting, Knowledge Checks

DEMONSTRATION

1. Log in to the TSDS Portal.
2. Navigate to DMC.
3. Hover over Monitor Validations tab. Click View L1.5 Filter Details.
4. Select the filter type in the Type dropdown to execute your search.
5. Click Search.
6. Review your L1.5 filter details.
7. Determine if any data caught by L1.5 filters should be:
   - Promoted to TSDS.
   - Resolved or changed in your source system(s).
   - Marked as ‘Verified’ and not reported to TSDS.

NOTE: The Reference Guide is a resource that provides step-by-step instructions for Viewing and Managing L1.5 Filters.

Link to reference guide

PRACTICE EXERCISE

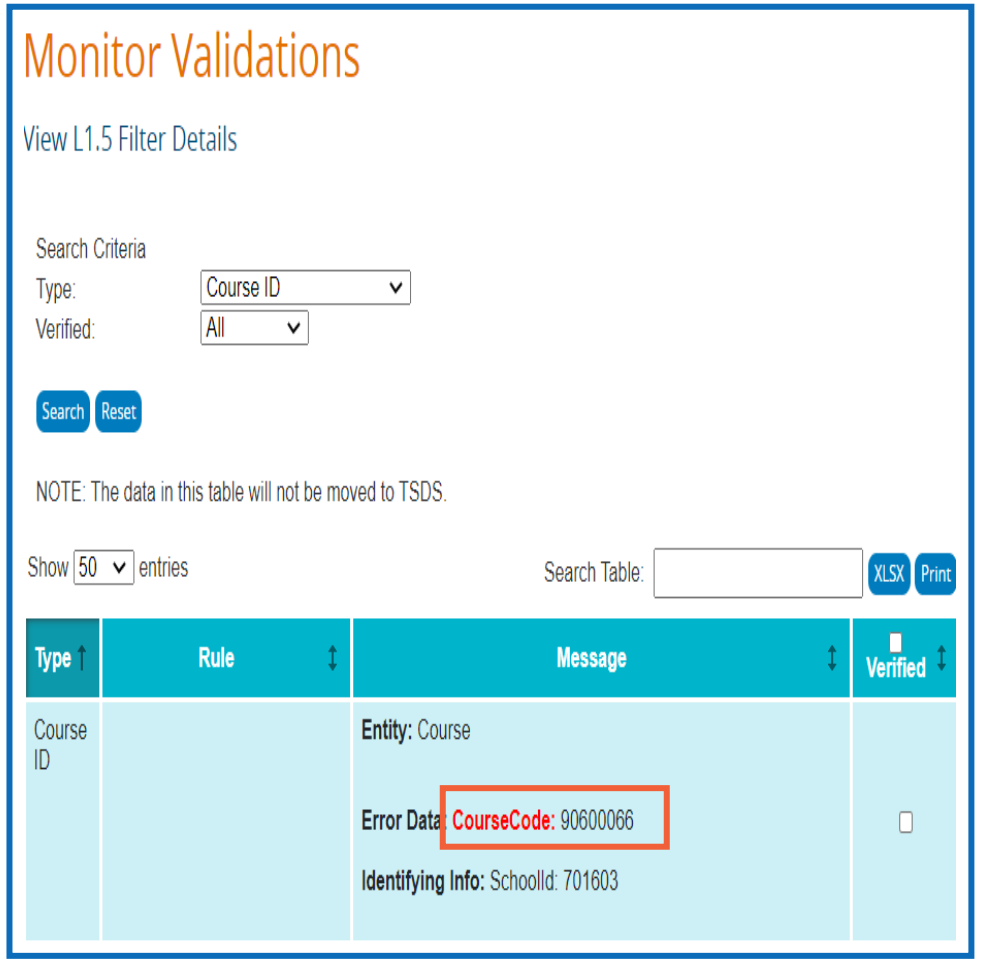
Task 1: Submit a TEAL Request for access to Level 1.5 Filter Details.

Task 2: View and manage Level 1.5 filters.



TROUBLESHOOTING

Scenario 1: L1.5 filter result for CourseCode because it is not TEDS-Compliant.

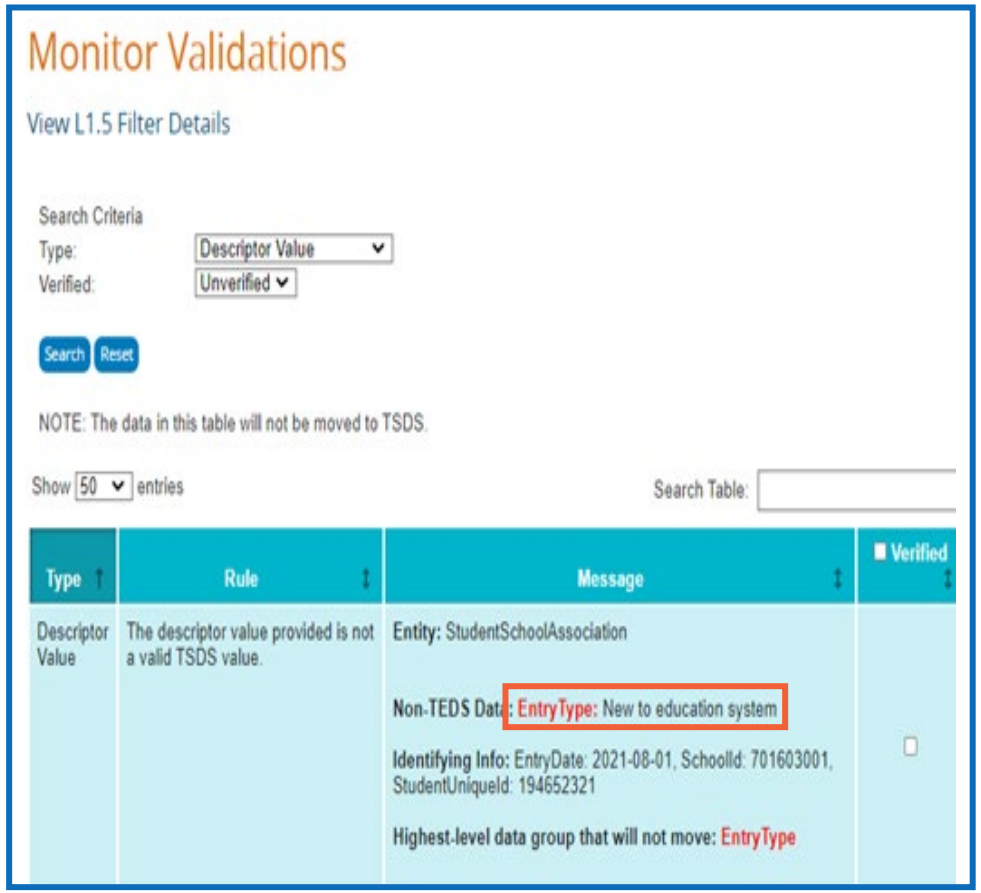


Resolution Steps:

- Determine if this local credit course should be promoted to TSDS.
- If this course should be promoted to TSDS:
  - Work with the teacher of record, and review TEDS to ensure that the CourseCode is TEDS-compliant.
  - Resolve or change local course code in your source system.
  - Once republished via API from your vendor software, this filter should no longer appear.
- If this local credit course should not be promoted to TSDS, click the Verified box for this filter. This will remain in your L1.5 filter results.

TROUBLESHOOTING

Scenario 2: L1.5 filter result for EntryType.

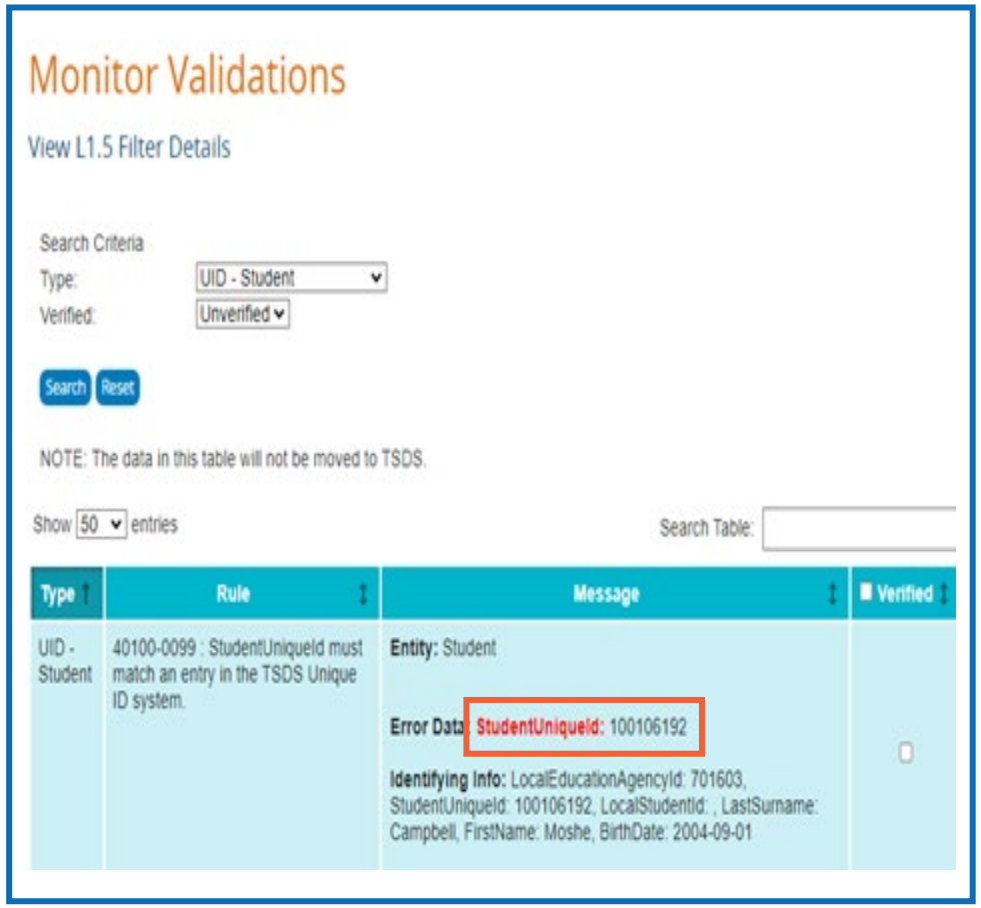


Resolution Steps:

- Review TEDS for EntryType code values.
- To have the data promoted to TSDS, you may complete one of the following:
  - Resolve or make the change in your source system.
    - Republish the data via API.
  - Map the local code value to a TEDS-compliant value in the DMC.
- If the data is not to be promoted to TSDS, you may:
  - Leave the data “as-is”.
  - Mark the data as ‘Verified’.
  - Have descriptor flagged as **Exclude from TSDS** on the Descriptor Mapping page (Descriptor Mapping privilege required).

TROUBLESHOOTING

Scenario 3: L1.5 filter result for StudentUniqueID.



Resolution Steps:

- Search within the Unique ID application by doing a Person Search to determine if this student is in the Unique ID system.
- Verify the student's Unique ID with what you have in your source system.
- Verify that student demographics in your source system(s) match what is in the Unique ID system and matches the enrollment documentation.
- Resolve or change any errors in your source system and/or the Unique ID system.
- Republish the data via API.
- Once the data has been republished via API, this filter should no longer appear.

KNOWLEDGE CHECK

1. **Which of the following describes filter checks performed in the IODS's Landing Zone that prevent data from being promoted into TSDS?**

   A. Level 1
   B. Level 1.5
   C. Level 2
   D. Level 3

KNOWLEDGE CHECK

2. Which of the following is not a Level 1.5 filter type?

A. Unique ID
B. Do Not Report
C. Business Rules
D. Course ID

KNOWLEDGE CHECK

3. What TEAL role do you need to verify and manage Level 1.5 filter details?

A. Core LEA Data Completer
B. DMC LEA Technical
C. PEIMS Data Completer
D. DMC LEA Data Monitor

KNOWLEDGE CHECK

4. **Selecting the ‘Verified’ checkbox next to a Level 1.5 filter result allows the user to filter out results that have been validated and are appropriate to promote into TSDS.**

A. True
B. False

NOTE: Selecting the verified checkbox next to a Level 1.5 filter will **NOT** promote the data into TSDS. This only categorizes the result as ‘Verified’ and assists the user in viewing their L1.5 results.

KNOWLEDGE CHECK

5. Receiving a Level 1.5 filter result means that something is wrong with the data published via API to the IODS in the Landing Zone.

A. True
B. False

NOTE: A Level 1.5 filter result informs the user that the data will **NOT** be promoted into TSDS unless it is updated or resolved. The result may still be valid for an LEA's local use purposes.



WRAP UP

Key Takeaways, Resources, and Next Steps

KEY TAKEAWAYS

The **DMC LEA Data Monitor** role is required to view and manage Level 1.5 validations.

L1.5 filter results are data validation checks against data loaded into the IODS and does not mean the data is wrong.

Data that is filtered out by L1.5 filters **will not** be promoted into TSDS for state reporting.

Users can designate a L1.5 filter as verified to flag results that have been previously reviewed.

TRAINING RESOURCES

- Key Terms and Definitions
- Quick Reference Guide for Level 1.5 Filters

NEXT STEPS

Apply for the DMC LEA Data Monitor role

- Utilize the training materials available for step-by-step instructions.
- Apply under the Texas Student Data System Portal application.
- Monitor the approval process and follow up with the designated TEAL approver as needed.

View and Manage Level 1.5 Filters.

- Once you have data loaded in your IODS in the Landing Zone, log into TEAL and access the L1.5 filters in the DMC application.

View and Manage Level 1.5 Filters

- Utilize the training materials available for step-by-step instructions in the Reference Guide.

WRAP UP

In this training we talked about:

- How to apply for the TEAL DMC LEA Data Monitor role to access the Level 1.5 filters.
- How to view and manage Level 1.5 filters in the DMC.

QUESTIONS

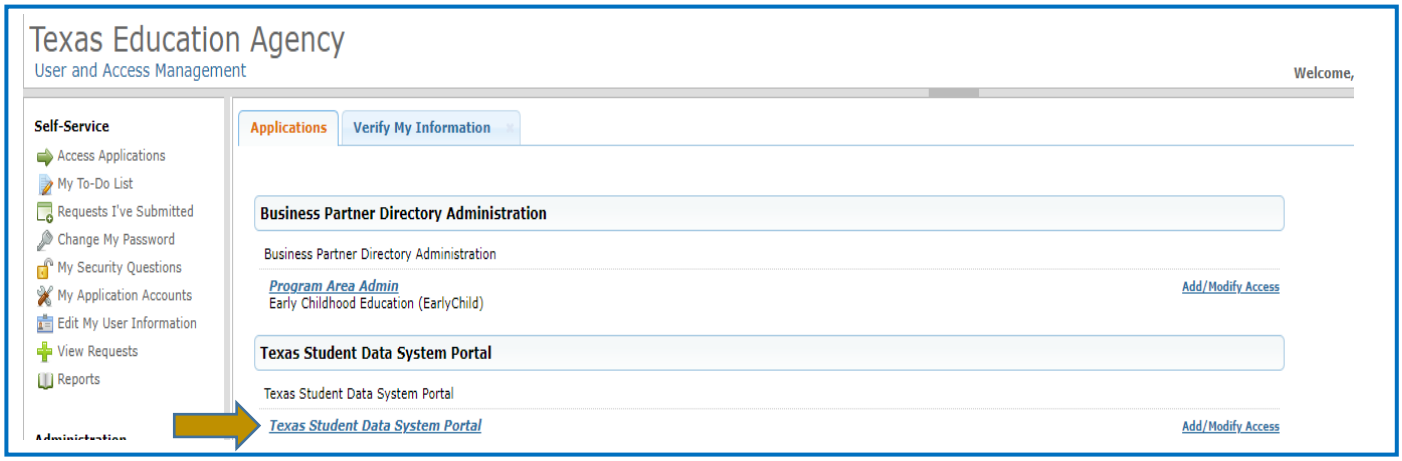


Level 1.5 Filter Details Reference Guide

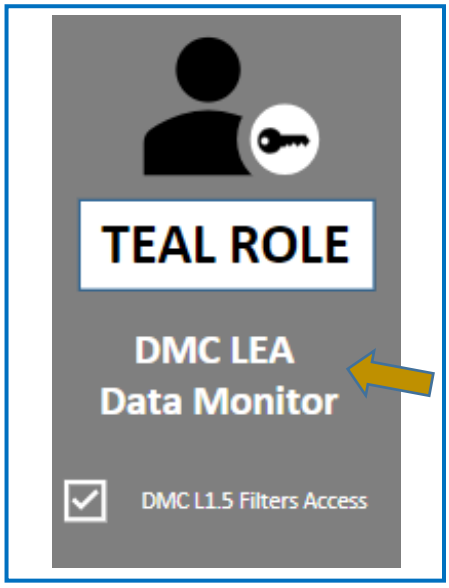
Target Audience: LEA Staff who need access to their organization's Level 1.5 (L1.5) filters in the Data Management Center (DMC).

Purpose: This guide provides a list of steps for LEA personnel responsible for viewing and managing the organization's L1.5 filters in the DMC. This guide helps end users ensure that the data that is intended to be loaded to TSDS is accurate and complete.

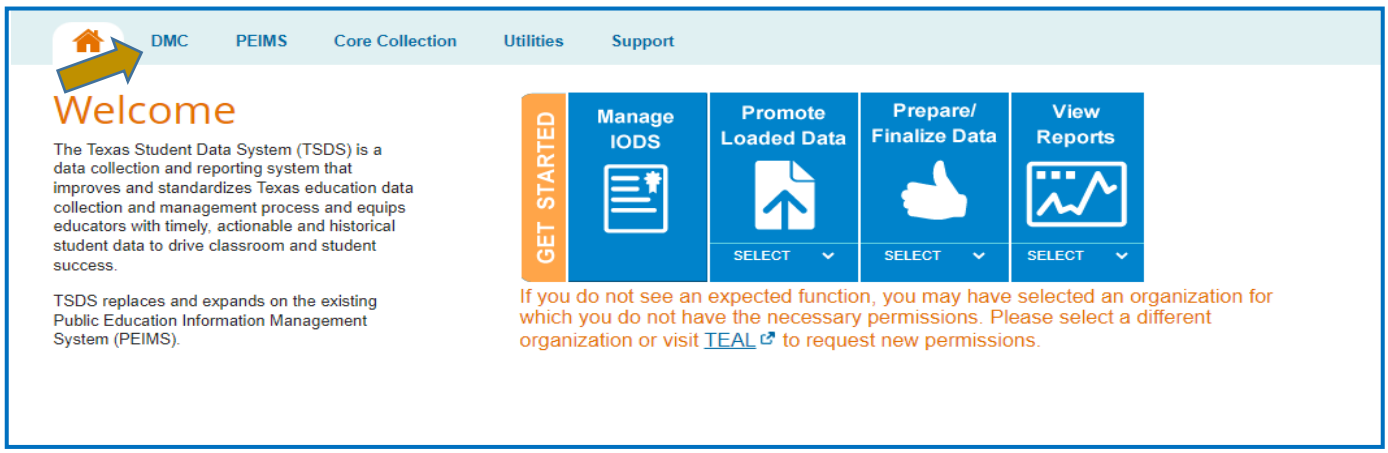
1. Log in to TEAL and navigate to the **Texas Student Data System Portal**.



2. Verify that you have requested the TEAL role **DMC LEA Data Monitor** with the DMC L1.5 Filters Access privilege checked by default.



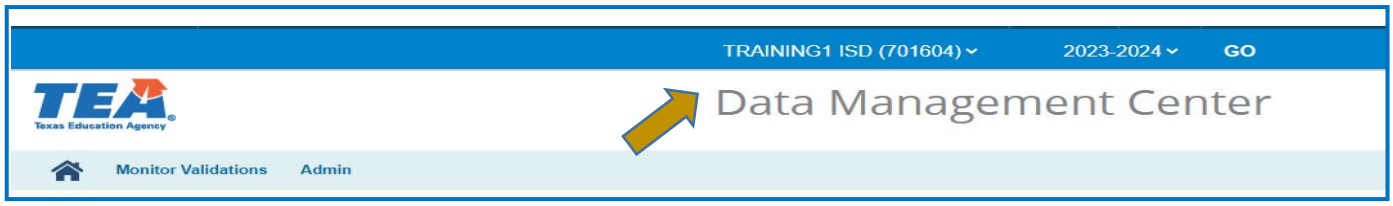
3. Click on **DMC** in the ribbon at the top of the screen.



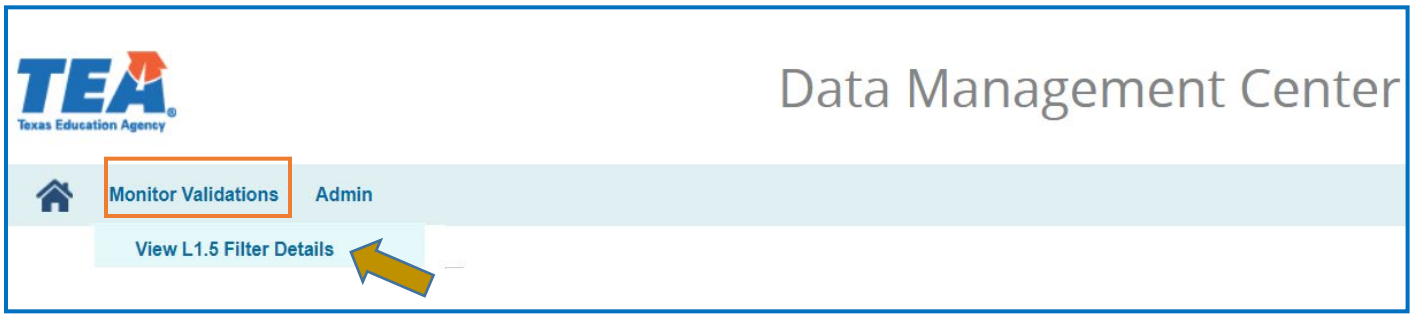
4. Click on the **Manage IODS** easy button to access the Data Management Center.



5. Upon accessing the DMC application, verify the organization and school year in the ribbon at the top right of the screen.

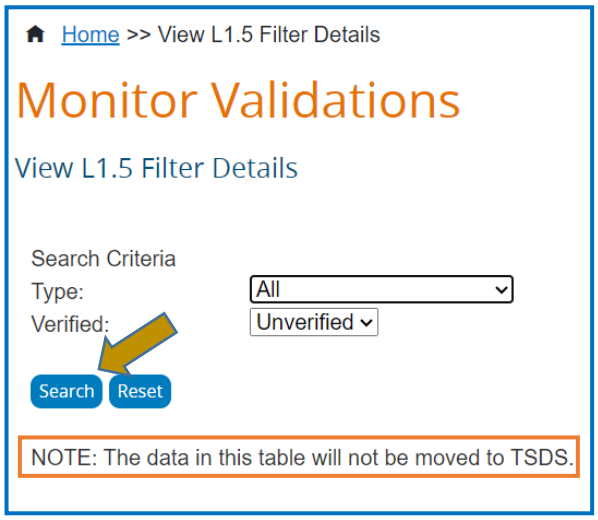


6. Hover over the **Monitor Validations** tab**,** click **View L1.5 Filter Details**.

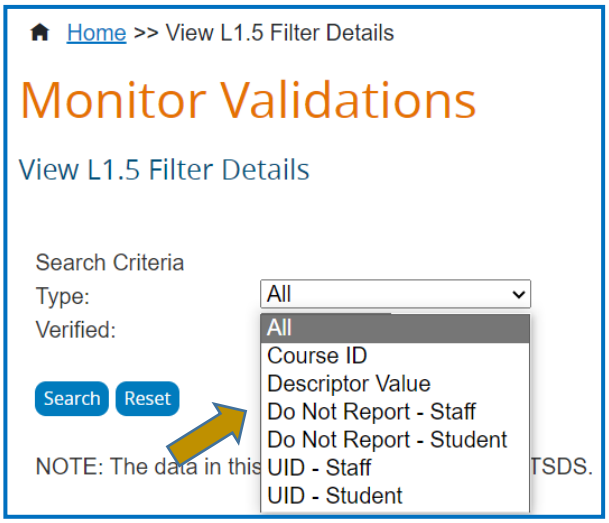


7. To view the Level 1.5 Filter Details, select the appropriate search choices and click on the **Search button**.

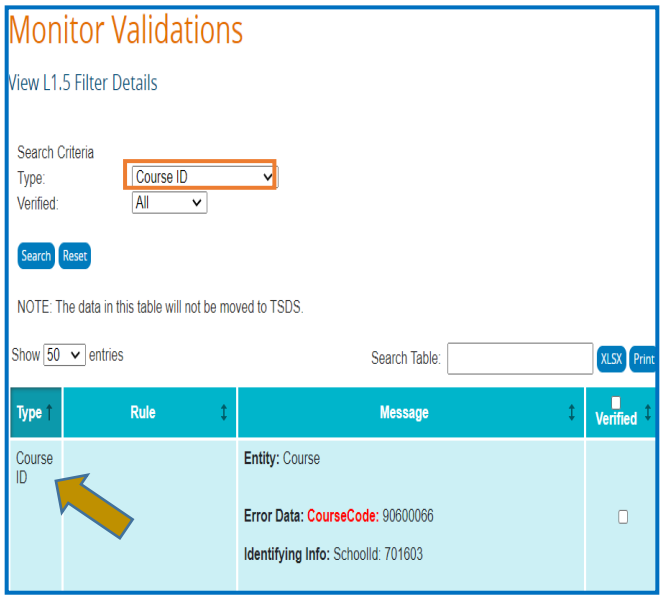
   Note: Selecting the reset button will return the user back to the initial search screen.



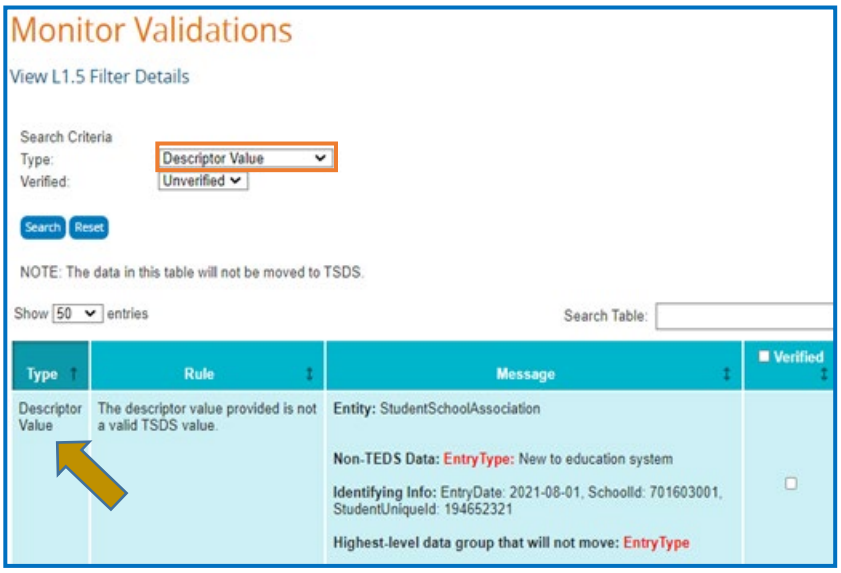
8. To refine your Level 1.5 Filter Details, select one of the predefined **Type** choices.



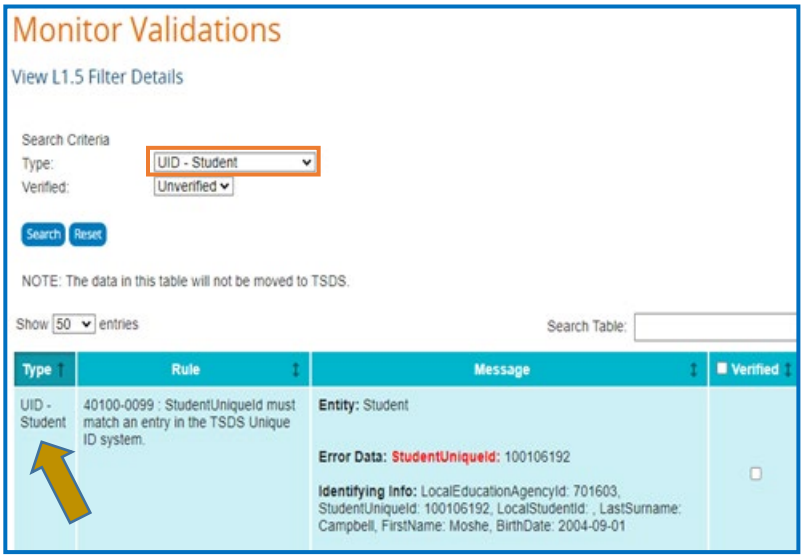
a. Select **Course ID** in the **Type** dropdown. Click **Search** to view all filter results for the **Course ID** filter type.
b. Review any Course ID that is not a valid TEDS course code or a local code that does not conform to the *****XXX pattern, where the asterisks are TEA-defined digits.



c. Select **Descriptor Value** in the **Type** dropdown to view results that will show any descriptor value that is not a TEDS-defined descriptor value for a state reported data element.

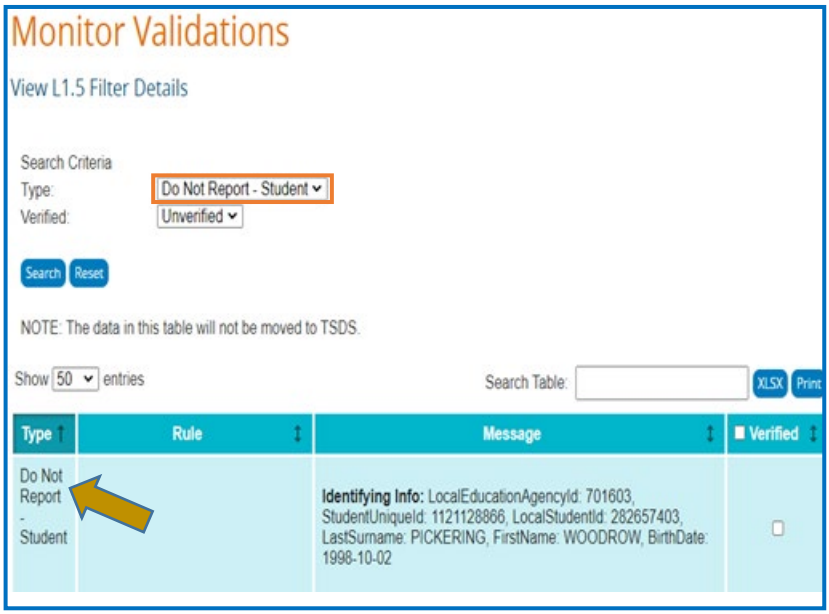


d. Select **UID – Student or UID – Staff** in the **Type** dropdown to view results that will show any Unique ID that does not meet the following criteria:
    i. Any student or staff with an invalid Unique ID; or
    ii. Any student or staff that fails Unique ID validation demographic checks.



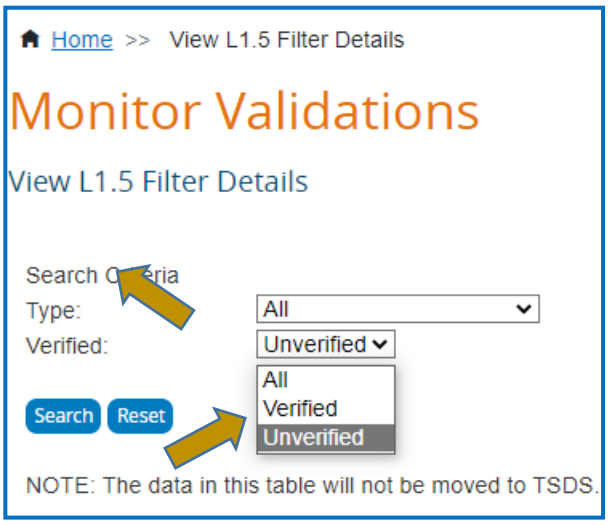
e. Select **Do Not Report – Student or Do Not Report – Staff** in the **Type** dropdown to view results that will show any data that meets the following:

    i. Any student or staff that has been identified as 'Do Not Report".



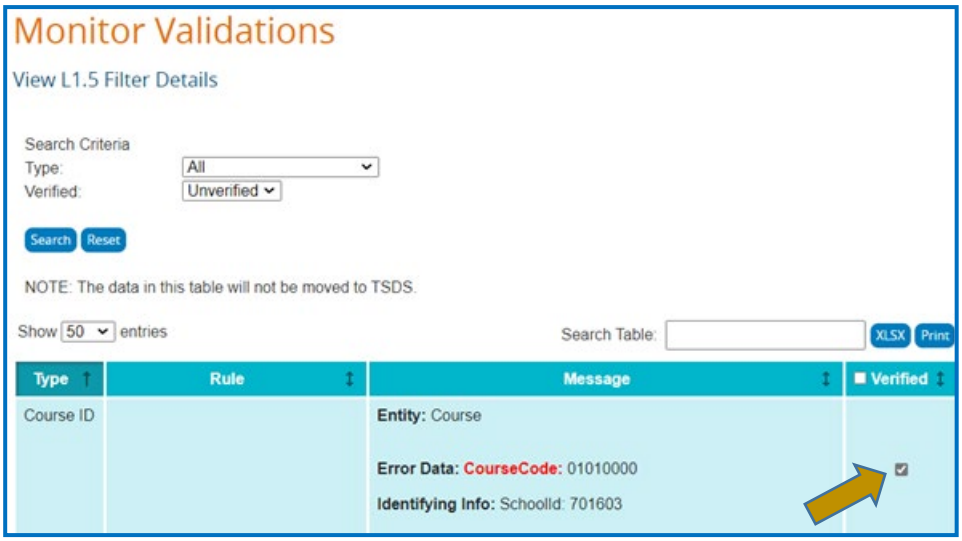
9. Designate Level 1.5 Filter Details as **Verified**.

   Note: This designation will allow a user to filter out previous results that have since been validated and deemed appropriate to be prevented from moving to TSDS for reporting.



10. To designate a result in the Level 1.5 Filter Details as verified, check the **box** in the line of the filter detail under the **Verified** column.

    Note: The result can be viewed again by selecting the All or Verified dropdown selection when performing a new search.





TSDS Upgrade Project

Level 2 (L2) Validations

KEY TERMS

Data Management Center (DMC)
Level 2 (L2) Validations
Level 3 (L3) Validations

You can find the definitions to these key terms and more here:

Link to Key Terms Document

LEARNING OBJECTIVES

By the end of this course, the user will be able to explain:

- The TEA Login (TEAL) role and privileges needed to schedule and view L2 Validations in the Data Management Center (DMC).
- What L2 Validations are and where they can be viewed.
- How to schedule and view L2 Validations in the DMC.

WHY IS THIS COURSE IMPORTANT

- The course is important because it enables the user to understand how to access the DMC to schedule and view L2 Validations prior to promoting data to TSDS. This in turn allows the user to be able to resolve many of their validation errors without having to promote their data.

COURSE AGENDA

GETTING STARTED
Apply for the DMC LEA L2 Validations Role

KEY CONCEPTS
Schedule and View L2 Validations

TRAINING ACTIVITY
Demo, Practice, Troubleshooting, Knowledge Checks

WRAP-UP
Key Takeaways, Resources, and Next Steps

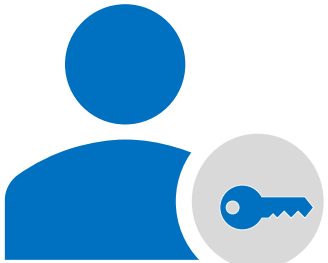


tsds texas student data system

GETTING STARTED

Apply for DMC LEA L2 Validations Role

TEAL ROLE AND FUNCTIONALITY



LEA TEAL ROLE

- **LEA Program Staff:**
  - DMC LEA L2 Validations
    - With specific privileges



KEY FUNCTIONS

- **LEA Program Staff:**
  - Schedule L2 Validations
  - View L2 Validations
    - PEIMS Validations
    - Core Collection Validations
  - DMC Summary Access to LEA Data

REQUESTING TEAL ACCESS

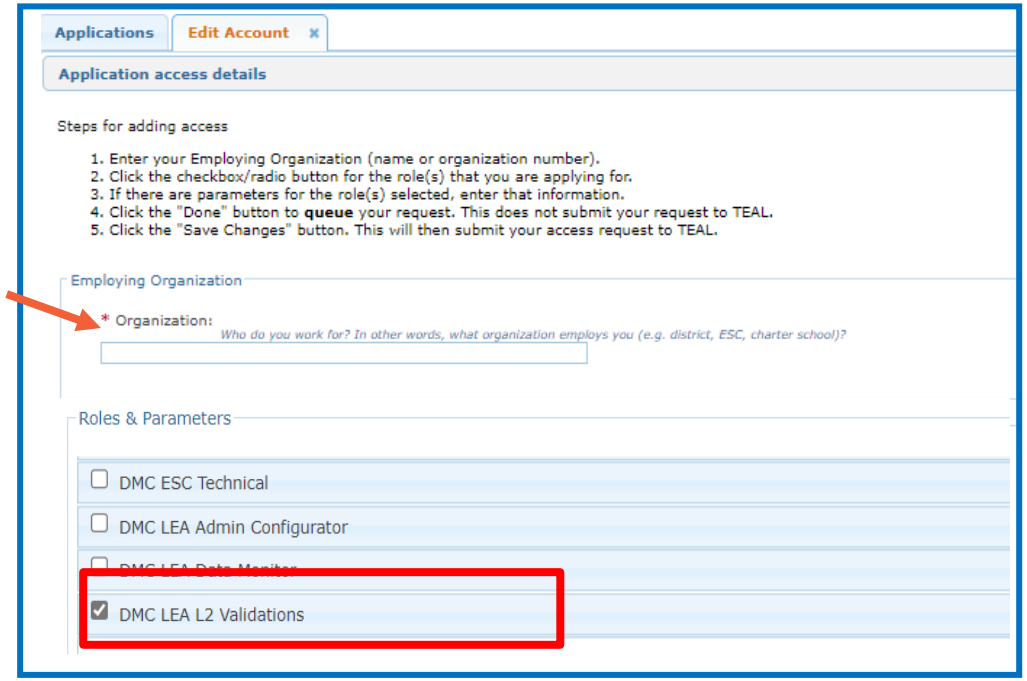
Please refer to the LEA TEAL Roles and Privileges training material if you need more information on:

1. Requesting Access to the TSDS Portal
2. Applying for the TEAL Roles.

APPLY FOR DMC LEA L2 VALIDATIONS ROLE

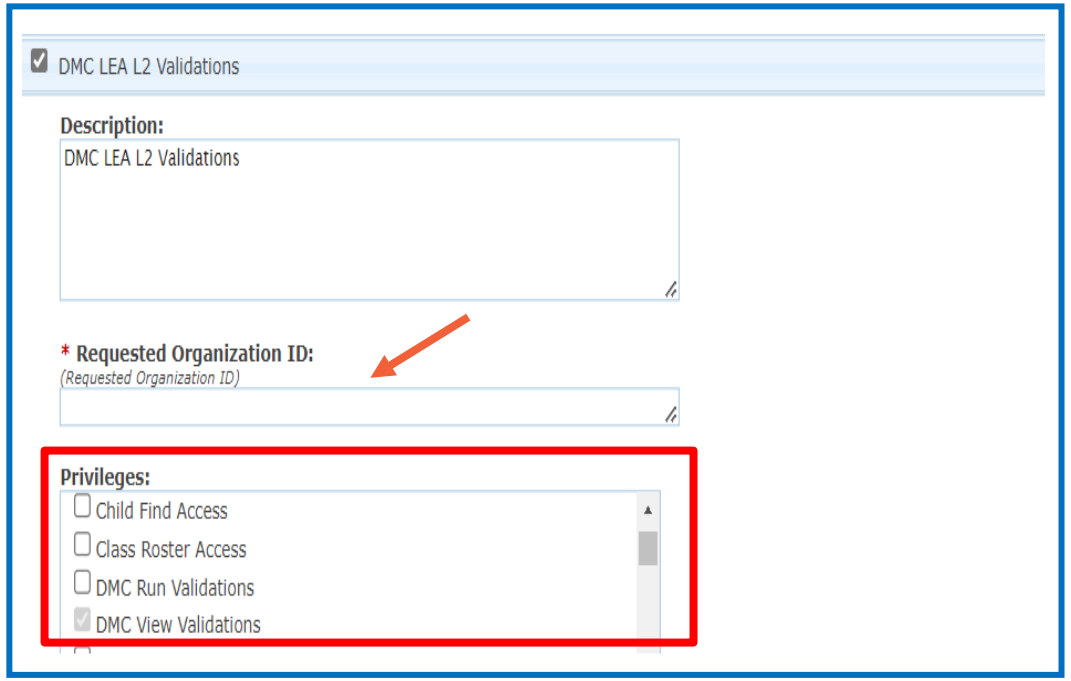
STEP 1:

Enter your **Employing Organization** and select the **DMC LEA L2 Validations** role.



STEP 2:

Enter the **Requested Organization**. Review the Privileges and check those that are appropriate for your job functions. Click **Done**. Click **Save Changes**.



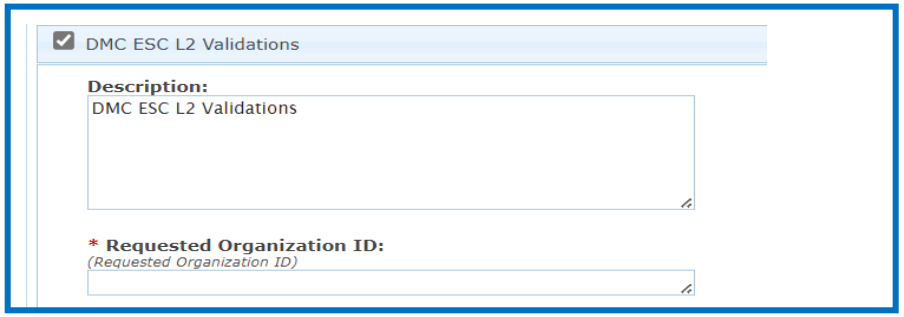
DMC LEA L2 VALIDATIONS PRIVILEGES

DMC LEA L2 Validations Privileges:

- Ensure that users select only the privileges needed for their job responsibilities.
- LEAs will determine who at the LEA will “Schedule” the L2 Validations and will need to request the **DMC Run Validations** privilege.
- Notice that the **DMC View Validations** privilege is checked by default.
- In addition, users **MUST** also select the collection specific data for which they should **view L2 Validations**.

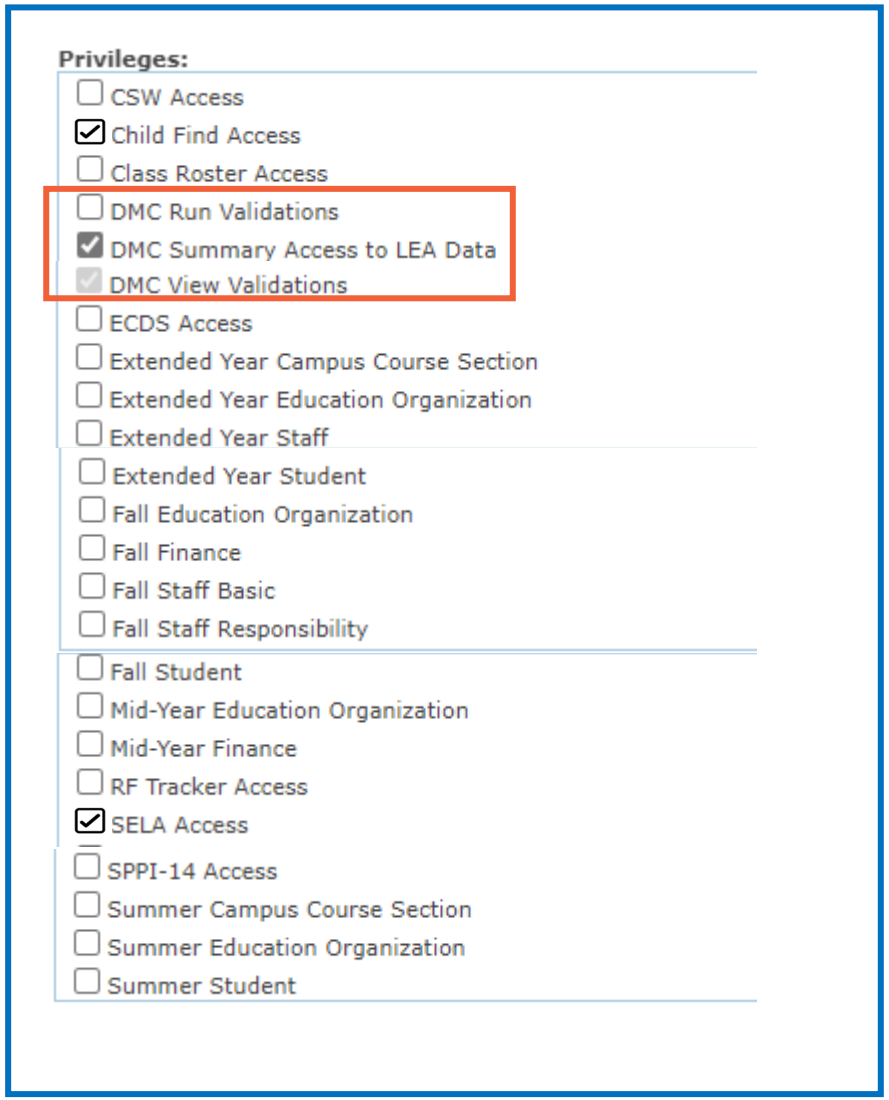
APPLY FOR DMC LEA L2 VALIDATIONS ROLE

DMC LEA L2 Validations Role



DMC LEA L2 Privileges

- Ensure that users select only the privileges needed for their job responsibilities.
- To **Run** and/or **View** L2 Validations the collection specific privilege(s) **must** be selected to match the user's job responsibilities.





KEY CONCEPTS

Schedule and View L2 Validations

LEVEL 2 VALIDATIONS

- **L2 Validations** are business rule validations that are **viewed in the DMC** on the data destined for TSDS.
  - L2 Fatal, Special Warning, or Warning validation errors do **not** prevent data from being promoted to TSDS.
- L2 Validations can be scheduled and viewed anytime after the collection opens and prior to when the collection closes.
- Scheduling and viewing L2 Validations in the DMC is an optional (<u>but highly recommended</u>) step in the submission process.
  - This step will allow the LEAs to begin reviewing and correcting errors prior to promoting the data to TSDS.

SCHEDULING L2 VALIDATIONS

- Users will **schedule** the L2 Validations in the DMC to run.
- L2 Validations are not available on-demand but rather are processed overnight.
- The L2 Validations must be scheduled prior to the cutoff time in order to run overnight as indicated on the Run L2 Validations screen in the DMC.

> NOTE: Validations jobs scheduled after 09:00 PM CT may not be queued for processing to complete by 06:00 AM CT the following day

- Users will be able to schedule L2 Validations by:
  - Collection
    - Submission
      - Category
        - Subcategory

COMING SOON

Users will be able to schedule **recurring** L2 Validation jobs to run automatically on a set schedule in the DMC.

- Users will schedule L2 Validations by:
  - Collection, Submission, Category, and Subcategory
- Users will be able to schedule L2 Validation jobs to run for a fixed future date.
- Users will be able to set a Recurrence Pattern for specific days of the week and the date range for a recurring job.

  Scenario: Let's say the user meets with the PEIMS team and the HR/Finance team during November and December every Wednesday as they are working on PEIMS Fall. The PEIMS Coordinator can set the L2 Validations job to run every Tuesday during these two months so their team can review the L2 validation errors in their Wednesday meetings.

LEVEL 3 VALIDATIONS

- **Level 3 Validations** are the same data validations that are run today in the PEIMS and CORE applications.
  - These validations are run from the PEIMS and CORE applications
  - They include Fatal, Special Warning, or Warning validation errors
- Level 3 Validations **contain all Level 2 Validations,** plus any additional validations required for the TSDS submissions.
  - Include validations and calculations that require referential integrity and data dependencies.
    - Example: If SPPI 11 Compliance (calculated value) is “y” then EvaluationDelayReason must be either not reported or "07".
- **Fatal validation errors** will prevent TSDS submissions from being completed or finalized.

VIEWING L2 VALIDATIONS

- In the DMC, users will be able to:
  - View Scheduled L2 Validations
  - View L2 Validation Summary
  - View L2 Validation Details
  - View L2 Validation Rules Count

L2 VALIDATIONS VIEW OPTIONS

View Scheduled L2 Validations

Provides a list of the scheduled L2 Validation jobs with the date scheduled and the job status.

View L2 Validation Summary

Provides L2 Validation errors summary count by Category, Subcategory, and Severity Type: Fatals, Specials Warnings, and Warnings.

View L2 Validation Details

Provides a detailed list of L2 Validation errors by Category and Subcategory with Severity, Rule #, and Rule Message.

View L2 Validation Rules Count

Provides a summary count of the number of Fatals, Special Warnings, and Warnings for the Collection/Submission.



TRAINING ACTIVITIES

Demo, Practice, Troubleshooting, Knowledge Checks

DEMONSTRATION

1. Log in to Training Environment.
2. Navigate to DMC.
3. Hover over Monitor Validations.
4. Click Schedule L2 Validation Job and schedule a job.
5. Click on View Scheduled L2 Validation.
6. Click on View L2 Validation Summary.
7. Click on View L2 Validation Details and determine how to resolve L2 Validations.
8. Click on View L2 Validation Rule Count.

Note: The Reference Guide (RG) is a resource that provides step-by-step instructions for Scheduling and Viewing L2 Validations.
Link to Level 2 Validations Reference Guide

PRACTICE EXERCISE

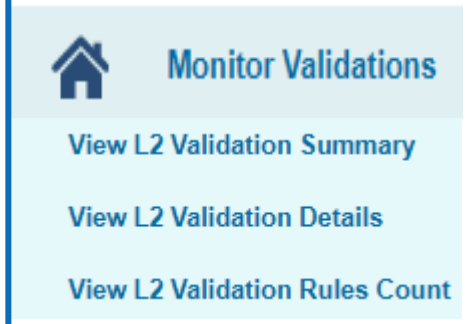
Task 1: Schedule L2 Validations.

Task 2: View L2 Validations.



TROUBLESHOOTING

Scenario 1: You do not see the Schedule L2 Validation Jobs menu item under the Monitor Validations tab.

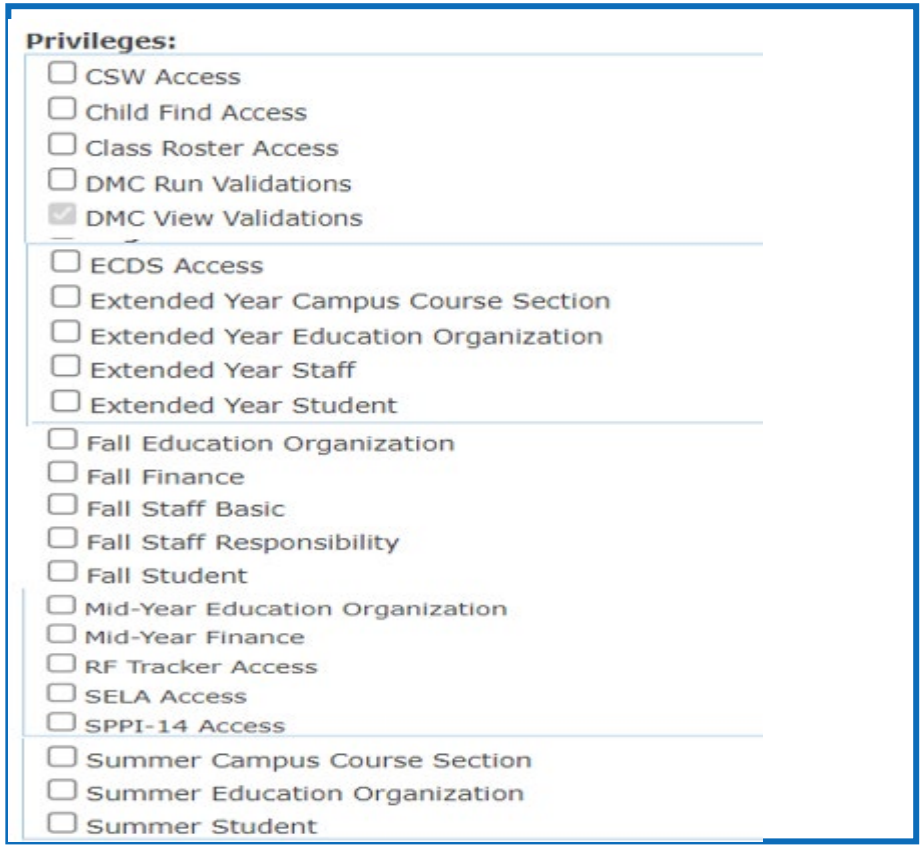


Resolution Steps:

- Check with your LEA team and/or program area specialists and decide who should have the privilege to run L2 in the DMC.
- Review the privileges you requested for the DMC LEA L2 Validations TEAL role.
- Modify your request if needed.

TROUBLESHOOTING

Scenario 2: You are not seeing any L2 Validations even though the DMC View Validations privilege is checked by default.



Resolution Steps:

- Review the privileges you requested for the DMC LEA L2 Validations role.
- Did you request access to the Core collections and/or PEIMS data needed for your job responsibilities?
- Modify your request as needed.

TROUBLESHOOTING

Scenario 3: You corrected data in your source system but are still seeing the same L2 errors.

- Review the L2 validation errors in the DMC, check with the appropriate staff at your LEA to determine how the errors should be corrected and that you have documentation to justify making the correction in your source system.
- Correct the data in your source system.

Resolution Steps:

- Verify that the corrections were made in the source system, saved, and published in the IODS.
- Ensure that the API transactions were successful and that there are no L1 errors or L1.5 filters prior to scheduling the L2 Validation job.
- Schedule L2 Validations to run again after you know the data is in the IODS and available for TSDS.
- The next day you can review the new L2 Validation Details.

KNOWLEDGE CHECK

1. Which TEAL role will be needed to schedule and view L2 Validations?

A. DMC LEA Admin Config
B. DMC LEA Data Monitor
C. DMC LEA Technical
D. DMC LEA L2 Validations

Note: Individuals requesting this role should check the privileges that are needed for their job responsibilities. The **DMC View Validations** privilege is the only privilege that is checked by default.

KNOWLEDGE CHECK

2. L2 Validations in the DMC can be scheduled and viewed:

A. One week before the submission is due to TEA.
B. Only on Tuesdays.
C. At any time after the collection opens and prior to when the specific collection closes.
D. Only after the data has been promoted to TSDS.

Note: Running L2 Validations in the DMC will allow the LEA to begin clearing up errors before they promote the data to the Data Marts.

KNOWLEDGE CHECK

3. L2 Validations scheduled before the cutoff time, can be viewed the following day.

A. True
B. False

Note: L2 Validations can be scheduled at any time prior to the cutoff time and can be viewed the following day. Validation jobs scheduled after the cutoff time may not be available the next day but should be available the following day.

NOTE: Validations jobs scheduled after 09:00 PM CT may not be queued for processing to complete by 06:00 AM CT the following day

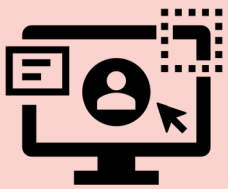


WRAP UP

Key Takeaways, Resources, and Next Steps

KEY TAKEAWAYS

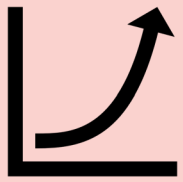
The **DMC LEA L2 Validations** role is required to schedule and view L2 Validations in the DMC.



Viewing L2 Validations in the DMC will allow users to begin correcting errors prior to promoting their data.



L2 errors **will not prevent** the data from being promoted to TSDS applications.



Unresolved DMC L2 Validation errors will be triggered as **Level 3** validation errors when the data is promoted.

TRAINING RESOURCES

- Key Terms and Definitions
- Level 2 Validations Reference Guide

NEXT STEPS

Apply for the DMC LEA L2 Validations role

- Apply for only the privileges needed for your job responsibilities.
- Utilize the training materials available for step-by-step instructions.
- Monitor the approval process and follow up with the designated TEAL approver as needed.

Schedule and View the L2 Validations in the DMC

- Schedule L2 Validations prior to the cut-off time for viewing the next day.
- View all L2 errors and begin making necessary corrections in local source systems.
- Corrected data will publish automatically to your IODS via the vendor API call.

WRAP UP

In this training we talked about:

- The TEAL role needed to schedule and view L2 Validations.
- What L2 Validations are and where they can be viewed.
- How to schedule and view L2 Validations in the DMC.

QUESTIONS

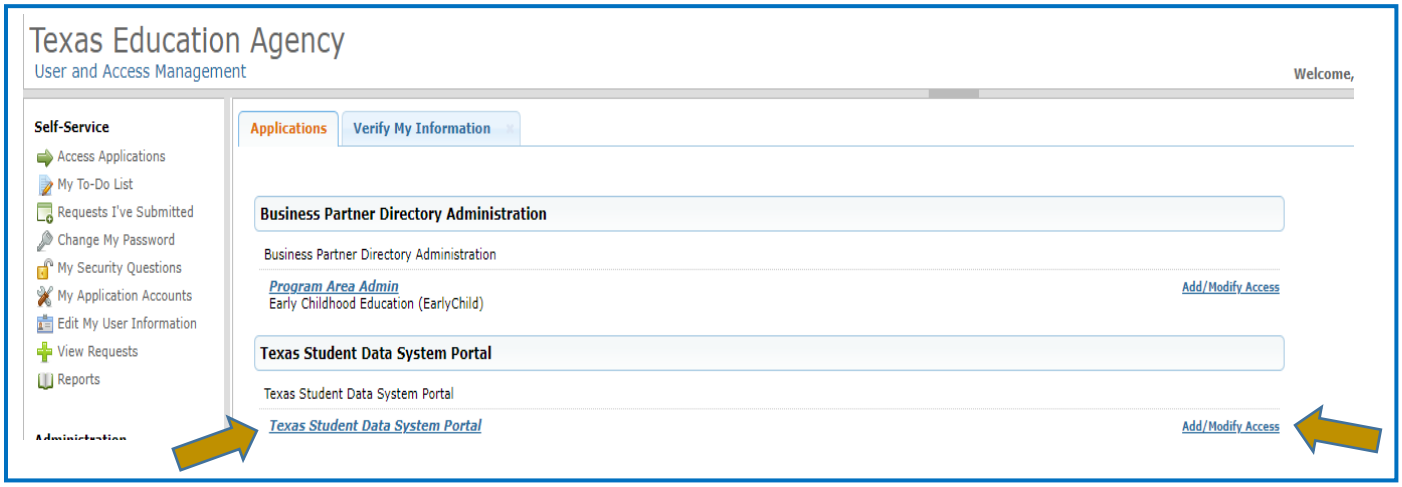


DMC Level 2 (L2) Validations

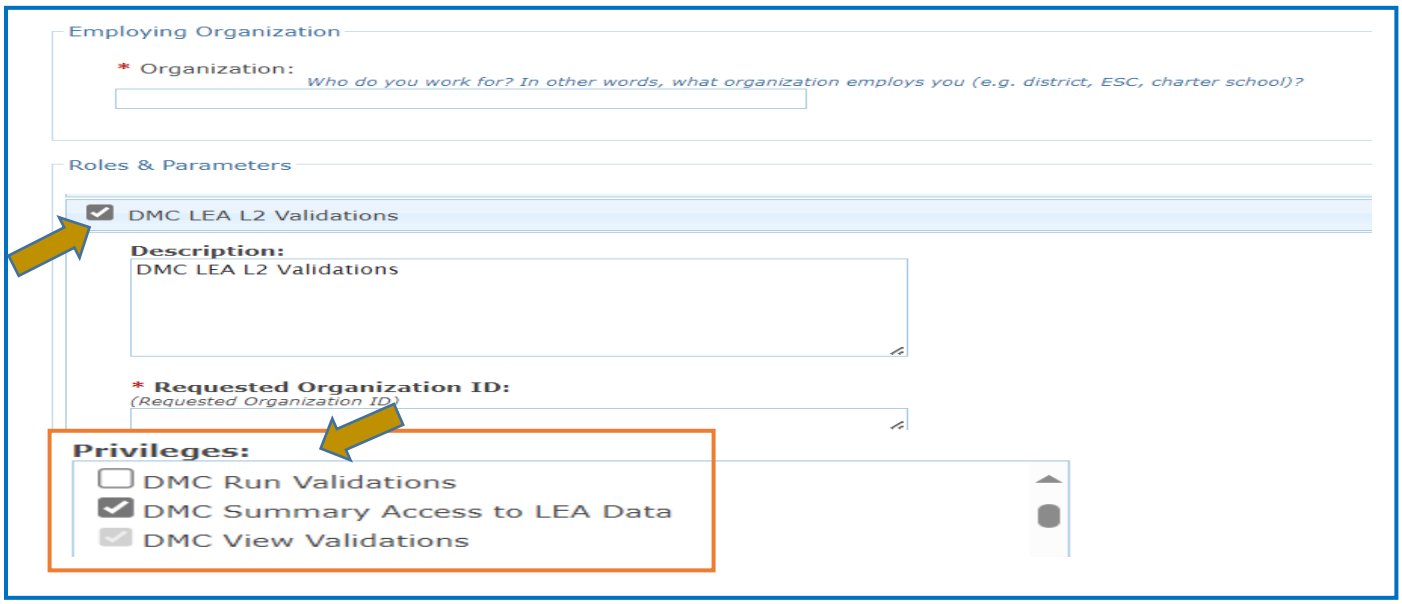
Target Audience: LEA and ESC Staff who will be scheduling L2 Validations jobs and viewing the L2 errors.

Purpose: This guide provides a list of steps for LEA and ESC personnel responsible for scheduling L2 Validation jobs and viewing L2 errors in the Data Management Center (DMC) application.

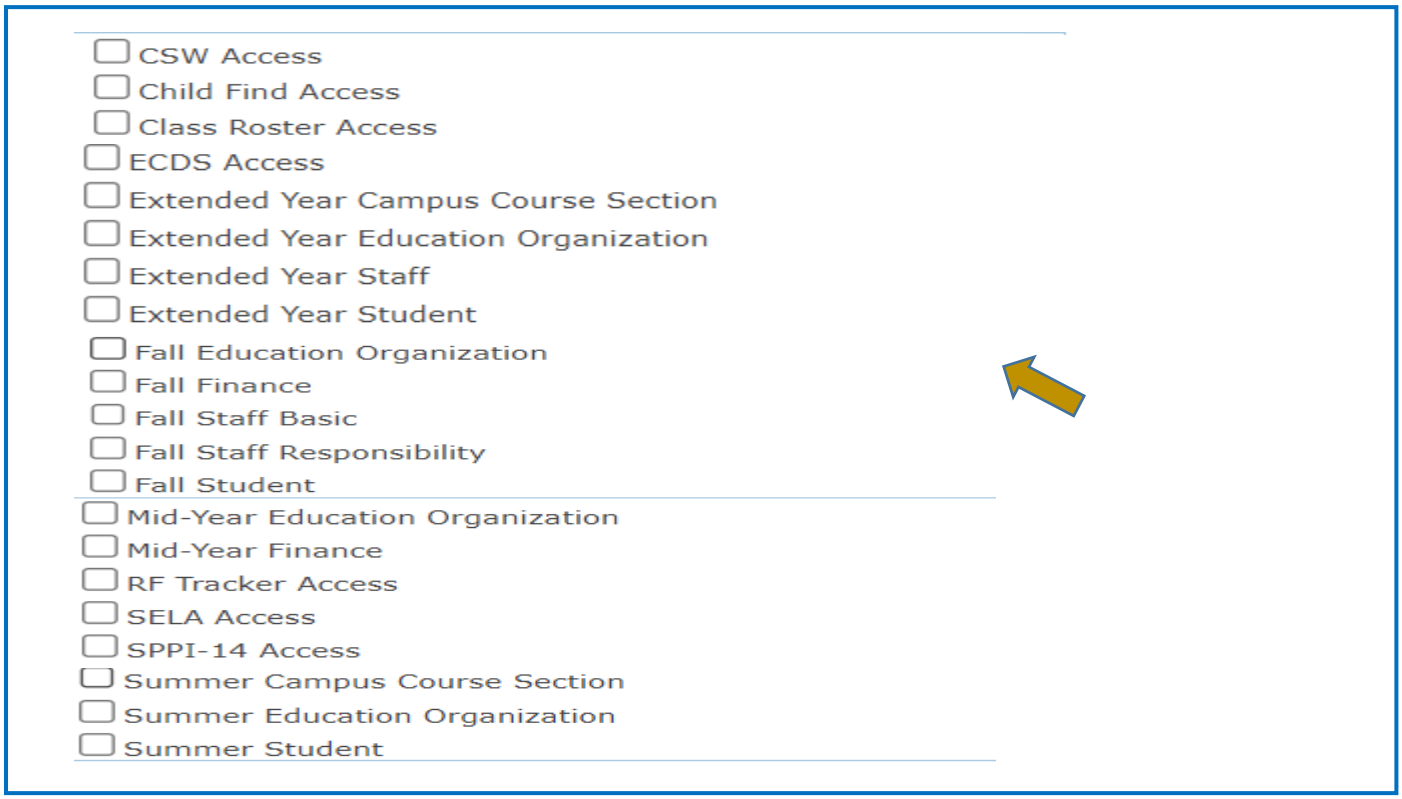
1. Log in to TEAL and navigate to the **Texas Student Data System Portal**. Click **Add/Modify**.



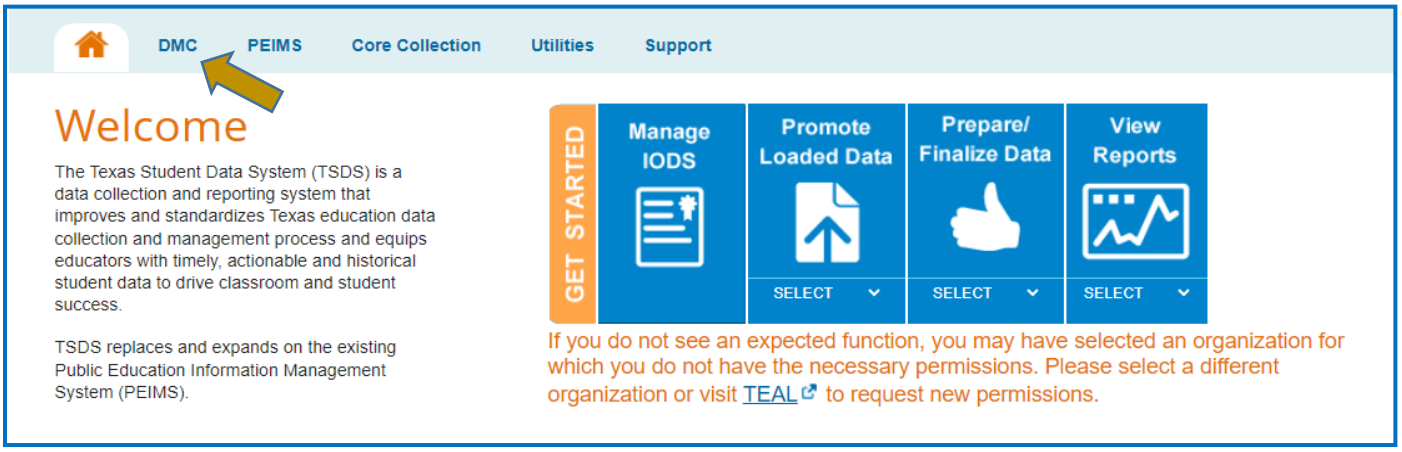
2. Check the TEAL role **DMC LEA L2 Validations Role** with the appropriate privileges. To **run** validations, you must check the DMC Run Validations privilege and the PEIMS/Core privileges needed for your job responsibilities.
   NOTE: DMC View Validations is checked by default but, you will not be able to view any validations unless you select the additional PEIMS/Core privileges needed for your job responsibility.



PEIMS/Core Privileges for L2 Validations – select only those that are needed for your job responsibilities.



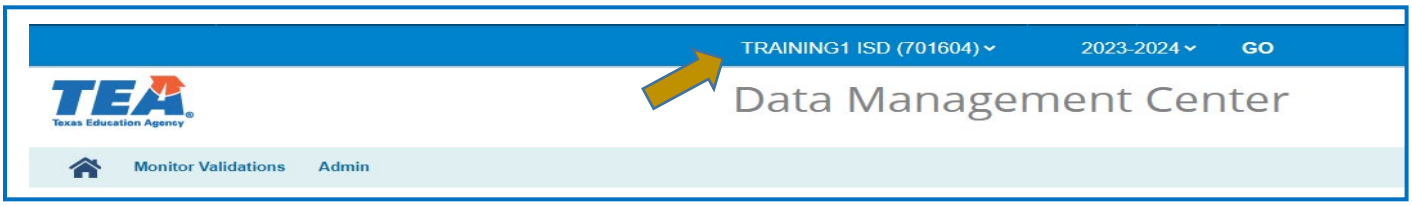
3. After your role is approved, click on **DMC** in the ribbon at the top of the page.



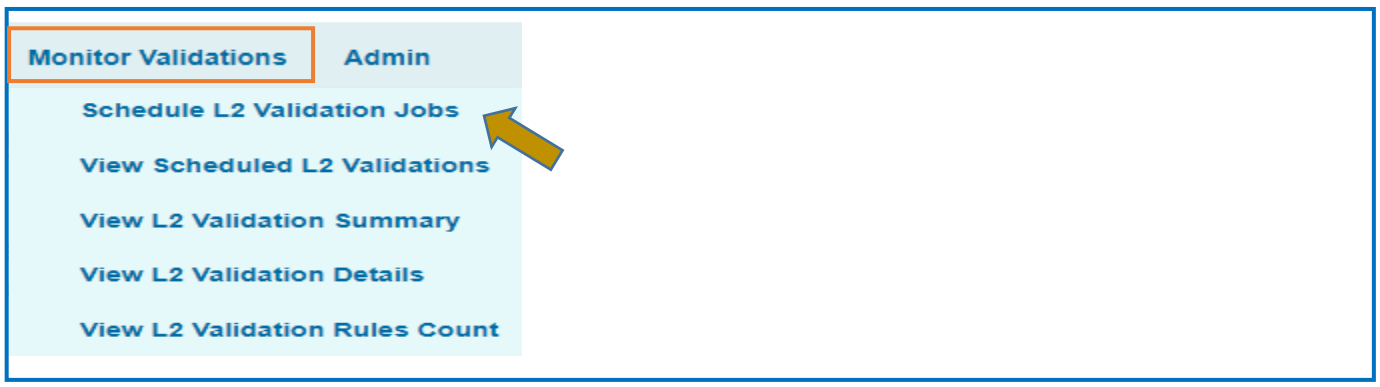
4. Click on the **Manage IODS** easy button to access the Data Management Center.



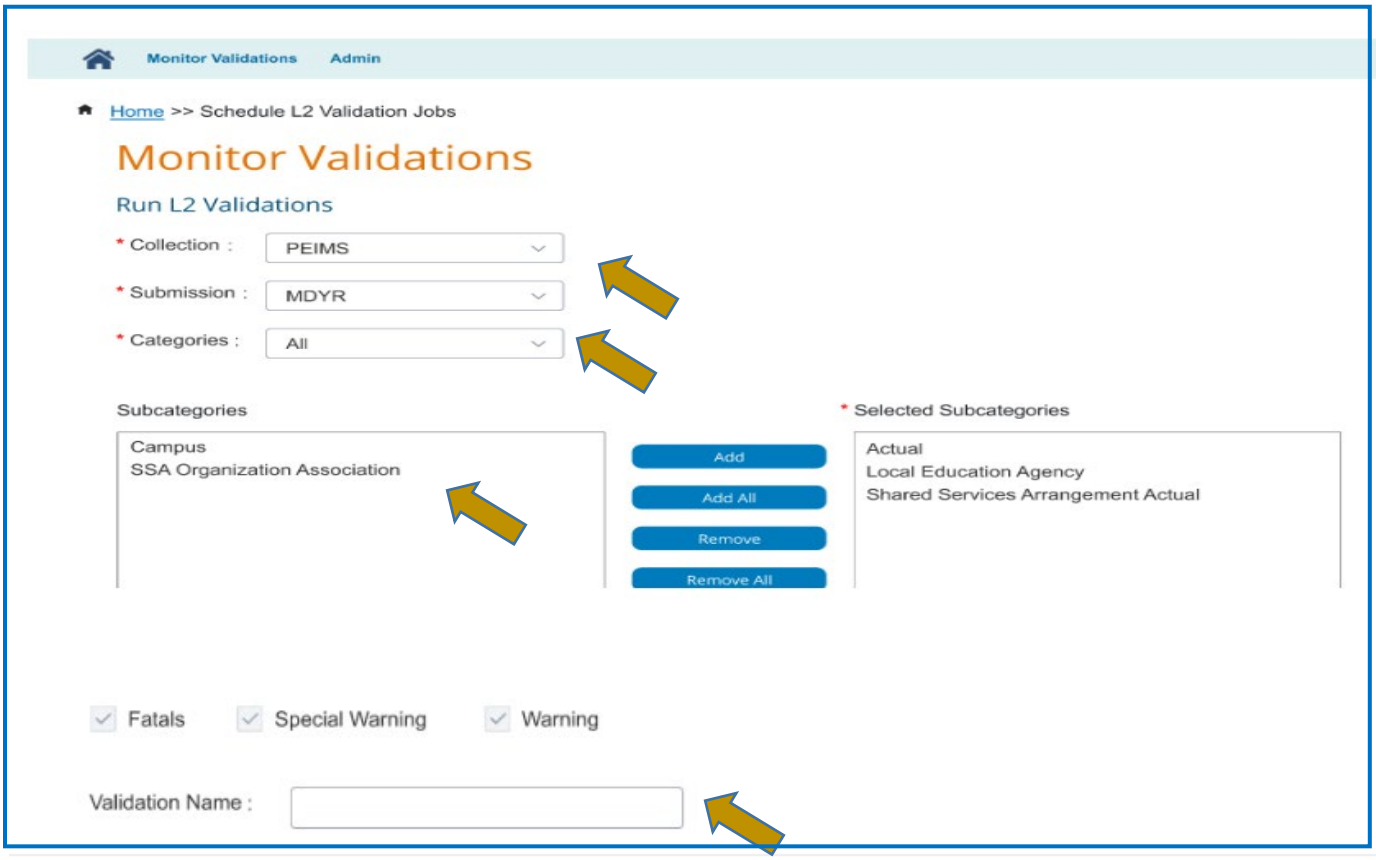
5. Upon accessing the DMC application, verify the organization and school year in the ribbon at the top right of the page.



6. Hover over the **Monitor Validations** tab**,** click **Schedule L2 Validation Jobs.**



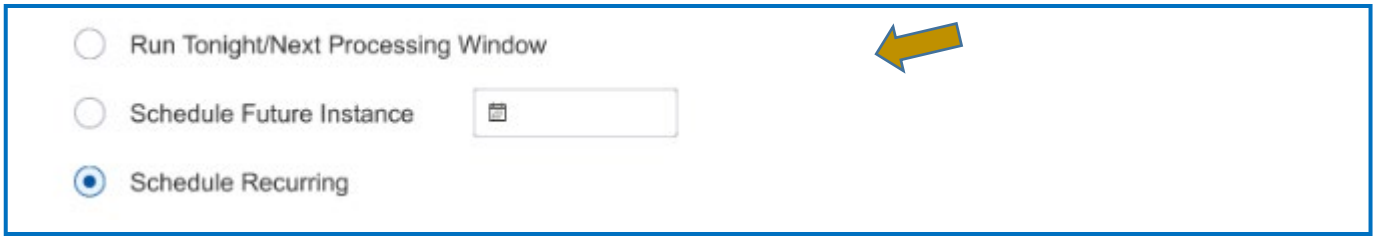
7. Select the **Collection and Submission**; select the **Categories and Subcategories**; enter a **Validation Name**.



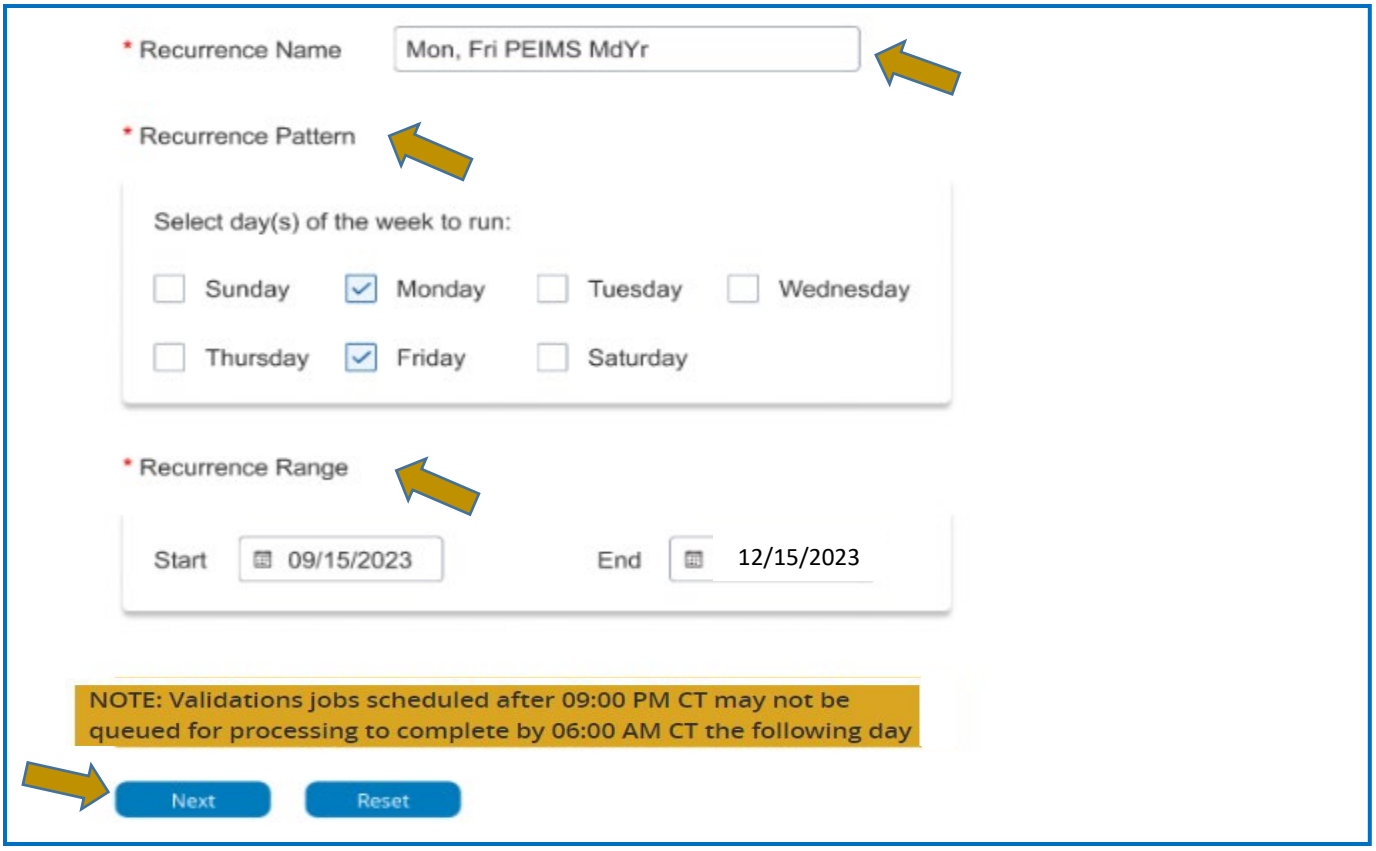
8. Choose the option for your L2 job.

- Run Tonight/Next Processing Window
- Schedule Future Instance – Choose a future date for the job to run.
- Schedule Recurring – Set up a recurring schedule for the job to run.

"Run Tonight/Next Processing Window" is available now; "Schedule Recurring" will be available in August for 2024-2025; "Schedule Future Instance" will come later.



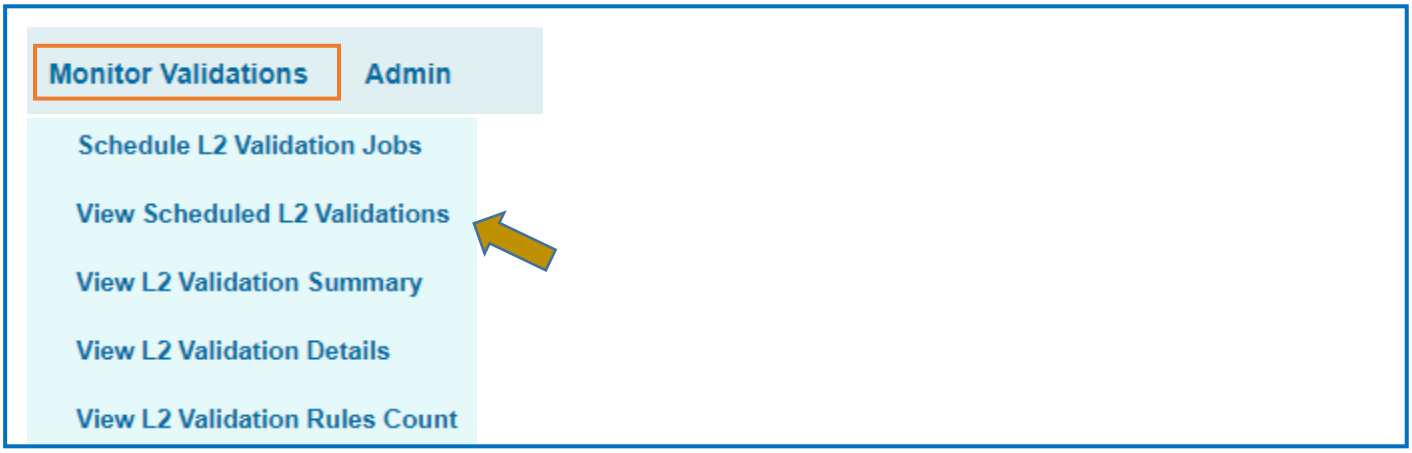
9. Enter the **Recurrence Name** if scheduling a recurring job. Select the **Recurrence Pattern**. Set the **Recurrence Range** for the job to run. NOTE: L2 Validations in the DMC will be unavailable once the submission is closed in PEIMS/Core. Click **Next**.



10. Confirm the Validation Request. Notice this page will indicate if it is a recurring job and the details of the recurrence. Click **Submit**.



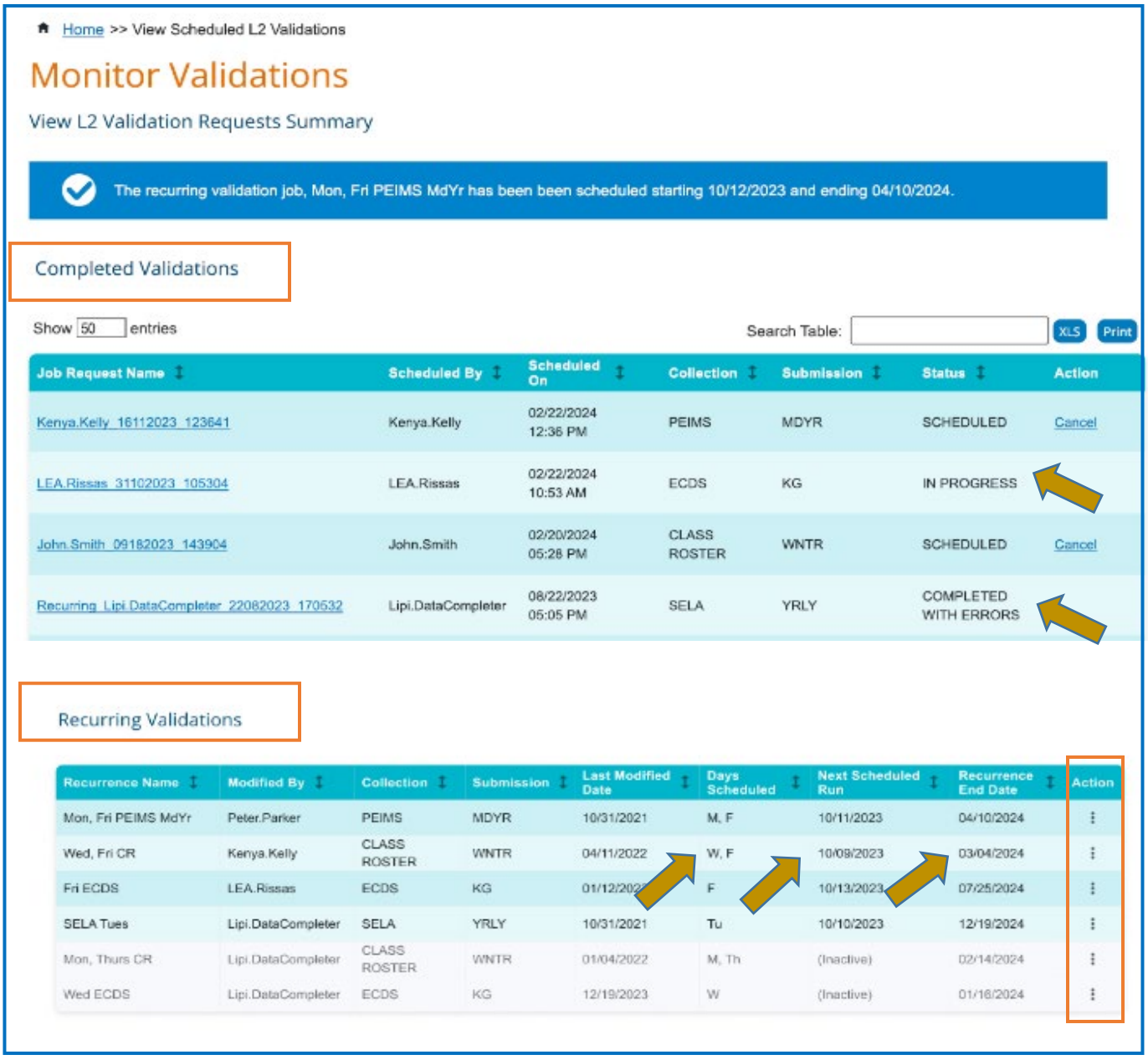
11. Hover over the **Monitor Validations** tab**,** click **View Scheduled L2 Validations**.



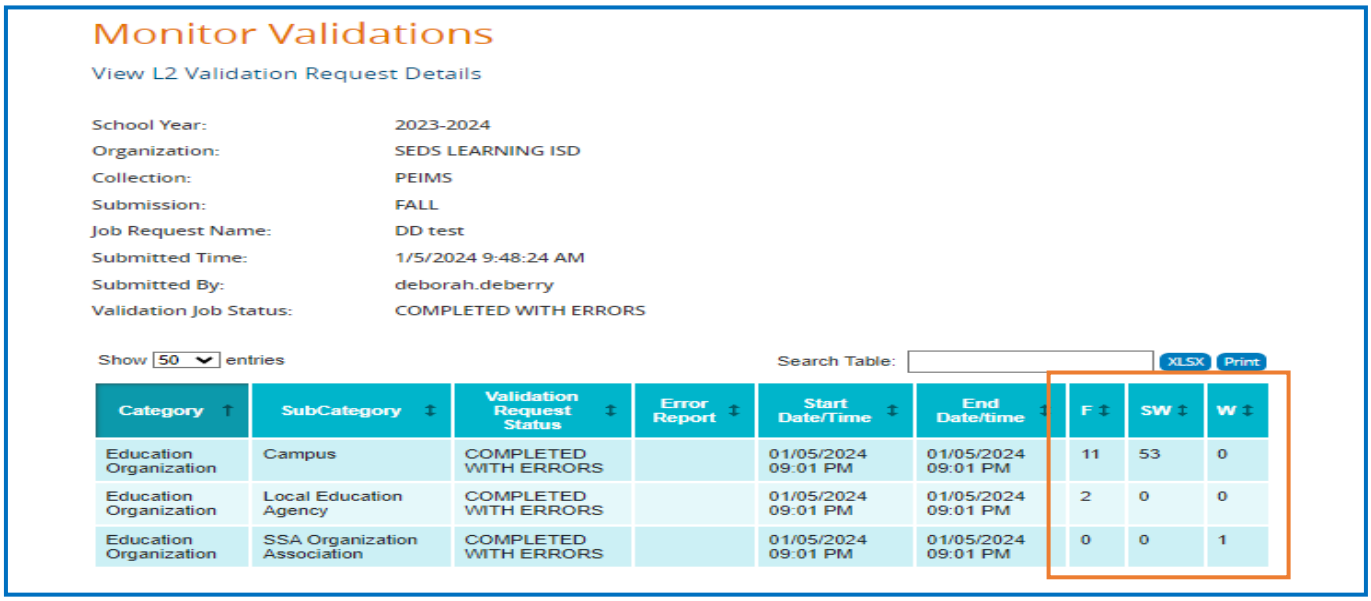
12. Review the Validation Requests Summary.

    a. Review the **Completed Validations Table**.
        - The Status column will indicate the status of the validation request.
        - When the status is “Completed with Errors”. Click on the hyperlinked **Job Request Name** to view the L2 Validation Request Detailsas shown in Step 13.

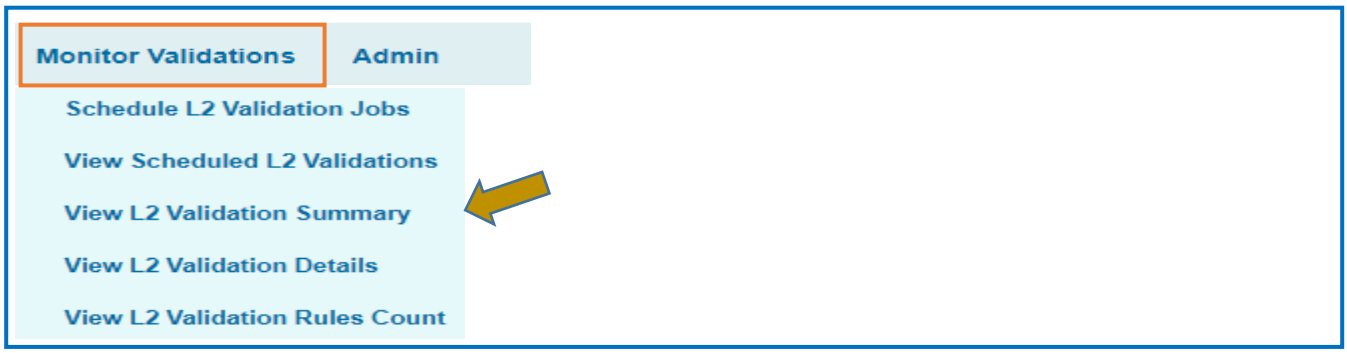
    b. Review the **Recurring Validations Table**.
        - The Days Scheduled, Next Scheduled Run, and Recurrence End Date will provide information about the recurring job.
        - The Action column will allow users to Edit or Delete a Recurring Job.



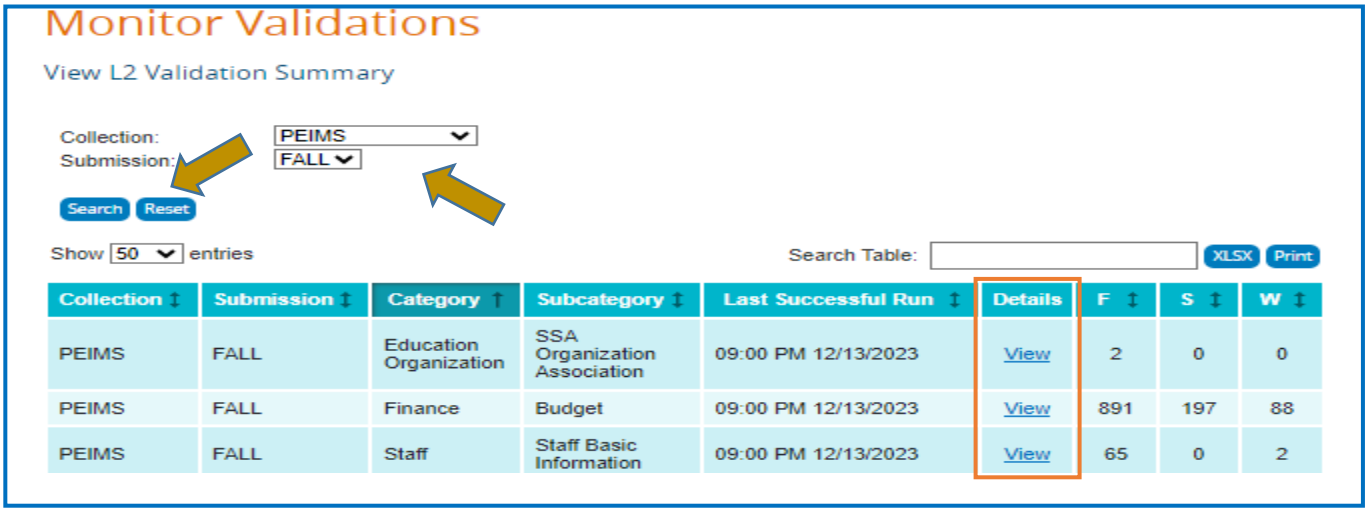
13. Review the Validation Request Details showing the number of Fatals, Special Warnings, and Warnings by category and subcategory for the specific validation request.



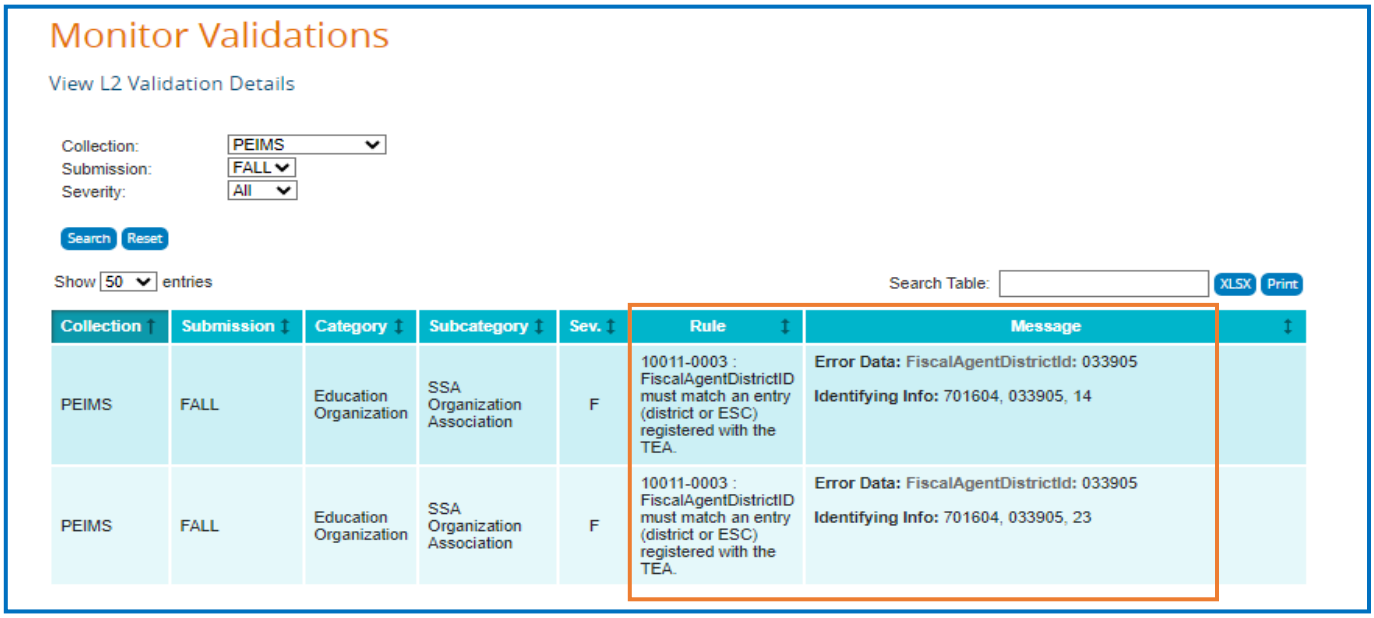
14. Hover over the **Monitor Validations** tab**,** click **View L2 Validation Summary.**



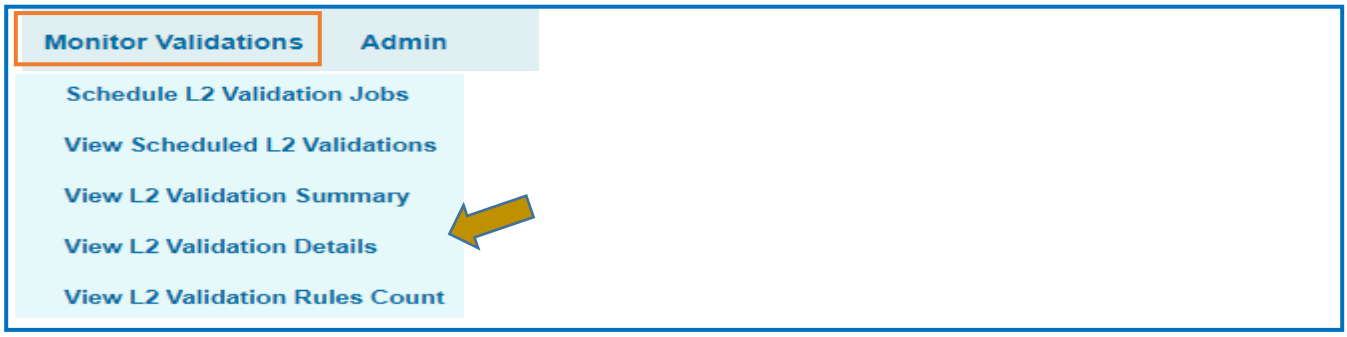
15. Select the **Collection** and **Submission.** Click **Search.** View error counts by Category and Subcategory. Click **View** in the Details column to drill down to the errors as shown on Step 16.



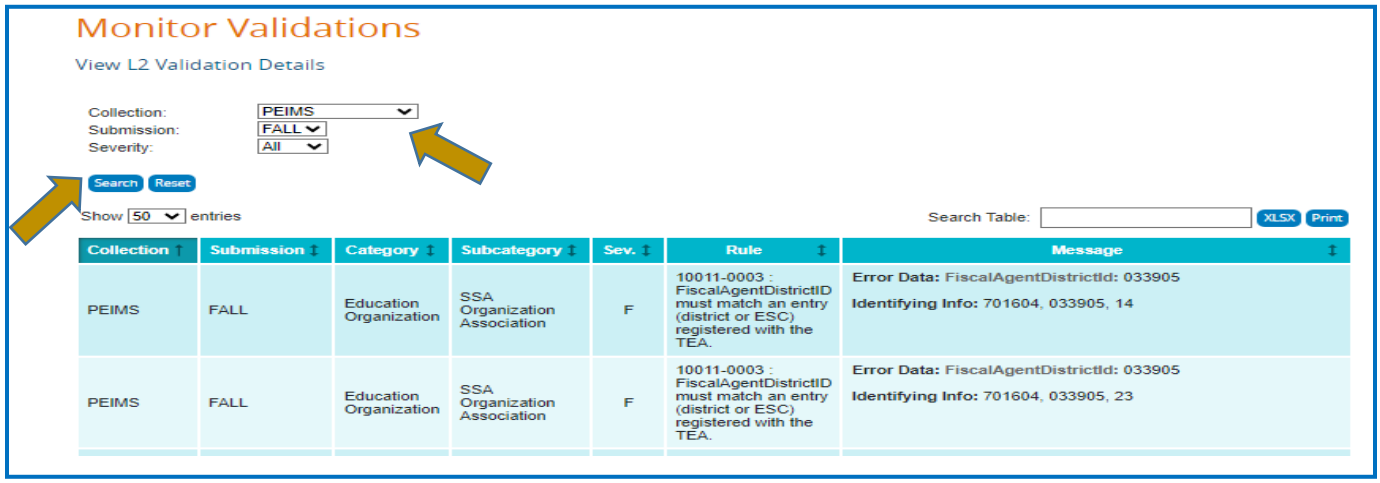
16. The ‘View’ page shows the details for all errors with the **Rule number** and Error Data and the Identifying Info in the **Message** column.



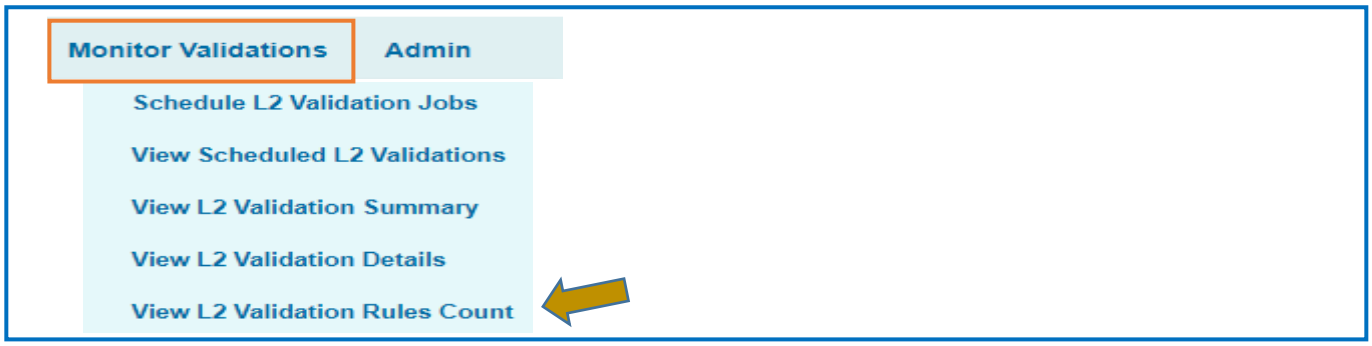
17. Hover over the **Monitor Validations** tab**,** click **View L2 Validation Details.**



18. Select the **Collection**, **Submission** and **Severity** for the L2 errors you wish to view. Click **Search**.



19. Hover over the **Monitor Validations** tab**,** click **View L2 Validation Rules Count.**



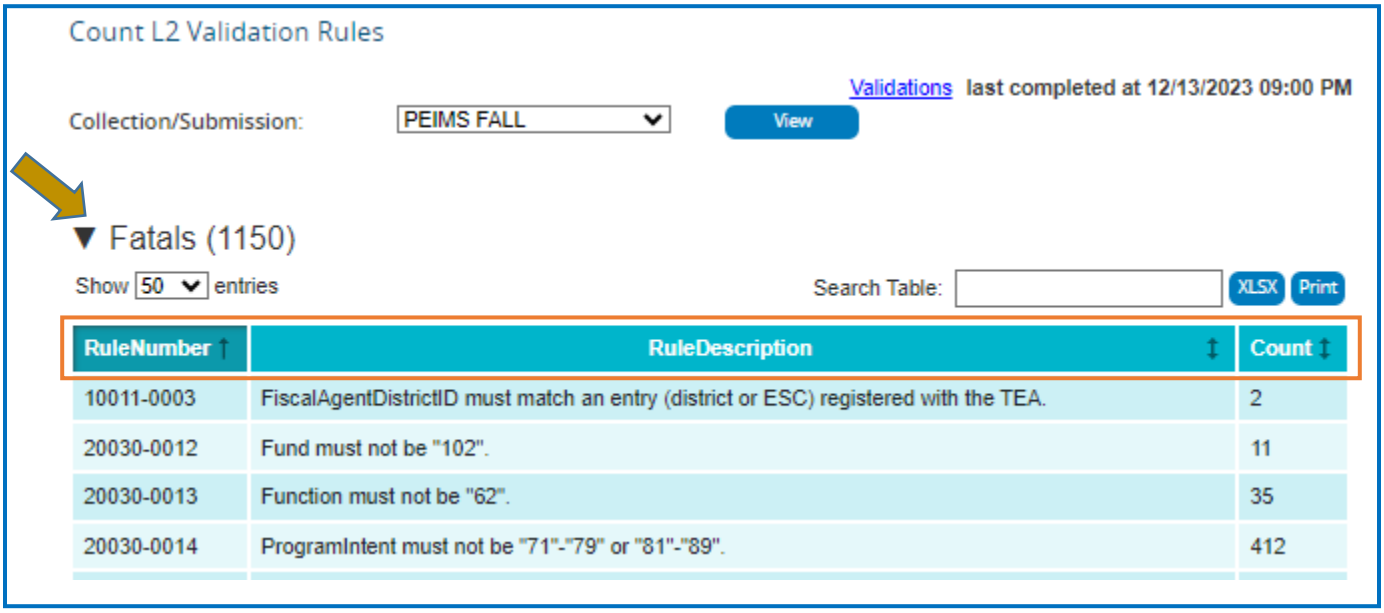
20. Select the **Collection/Submission**. Click **View**.



21. This page provides a summary of the rule count for each severity level. Click the ► beside the severity level to expand.



22. The **Rule Number**, **Description**, and a **Count** of the errors for each rule will be shown when the severity is expanded.





TSDS Upgrade Project

Security Management in the DMC

KEY TERMS

Application
Application Programming Interface (API)
Claim Set
Claim Set Resources
Data Management Center (DMC)
Individual Operational Data Store (IODS)
Key and Secret
Publish

You can find the definitions to these key terms and more here:

Link to Key Terms Document

LEARNING OBJECTIVES

By the end of this course, the users will be able to explain:

- The TEA Login (TEAL) role and privilege needed to manage security in the Data Management Center (DMC).
- What a claim set is and how it is assigned.
- How to generate a key and secret in the DMC.

WHY IS THIS COURSE IMPORTANT

- To understand how to access the DMC and generate the key and secret necessary for source system vendors to effectively publish data into the Individual Operational Data Store (IODS) for TSDS reporting and optionally for local use by the LEA.

COURSE AGENDA

GETTING STARTED
Apply for DMC LEA Technical Role

Key Concepts
Application, Claim Set, Key & Secret

Training Activity
Demo, Practice, Troubleshooting, Knowledge Checks

WRAP-UP
Key Takeaways, Resources, and Next Steps



GETTING STARTED

Apply for DMC LEA Technical Role

TEAL ROLE AND FUNCTIONALITY



LEA TEAL ROLE

- **LEA Technical Administrator:**
  - DMC LEA Technical



KEY FUNCTIONS

- **Administrator Functionality:**
  - Manage Claim Sets
  - Manage Applications, Keys, and Secrets

The LEA should limit this role to one or two individuals.

REQUESTING TEAL ACCESS

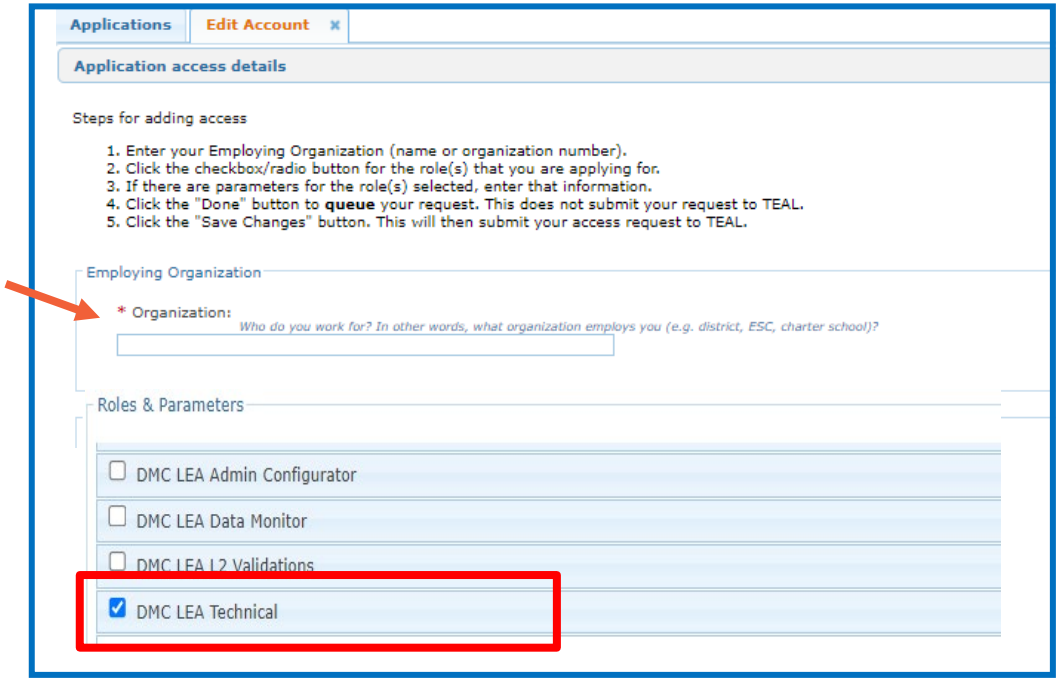
Please refer to the LEA TEAL Roles and Privileges training material if you need more information on:

1. Requesting Access to the TSDS Portal
2. Applying for the TEAL Roles.

APPLY FOR DMC LEA TECHNICAL ROLE

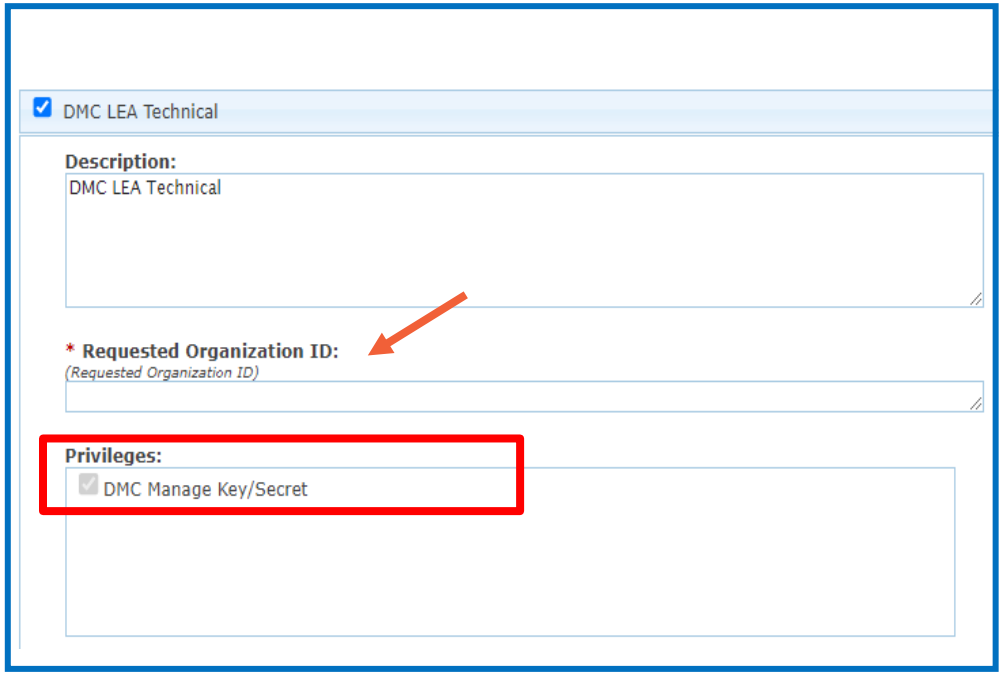
STEP 1:

Enter your **Employing Organization** and select the **DMC LEA Technical** role.



STEP 2:

Enter the **Requested Organization** in the *Requested Organization ID* field and click **Done**. Click **Save Changes**.





KEY CONCEPTS

Application, Claim Set, Key & Secret

SETUP STEPS IN THE DMC

1

Add an Application for each Source System Vendor and/or Vendor Product as necessary.

2

Choose the Appropriate Claim Set for each Vendor Application and/or Vendor Product as necessary.

3

Generate the Key & Secret for each Application.

4

Communicate Key & Secret Information with each Vendor.

CLAIM SET

- A **claim set** defines the access to which the source system has to the LEA's data in the IODS.
- Access may include:
  - **Create**
  - **Read**
  - **Update**
  - **Delete**

TEA Pre-Defined Claim Sets:

- SIS Vendor
- HR Vendor
- Finance Vendor
- HR/Finance Vendor
- SIS/HR/Finance Vendor
- Assessment Vendor
- Read-Only All Resources

(e.g., Third Party Vendors)

KEY & SECRET

- A **key** and **secret** are the credentials used by the source system vendor to access the API.
- The key and secret are like a username and password and should be handled in a secured manner and follow local security policy when applicable.

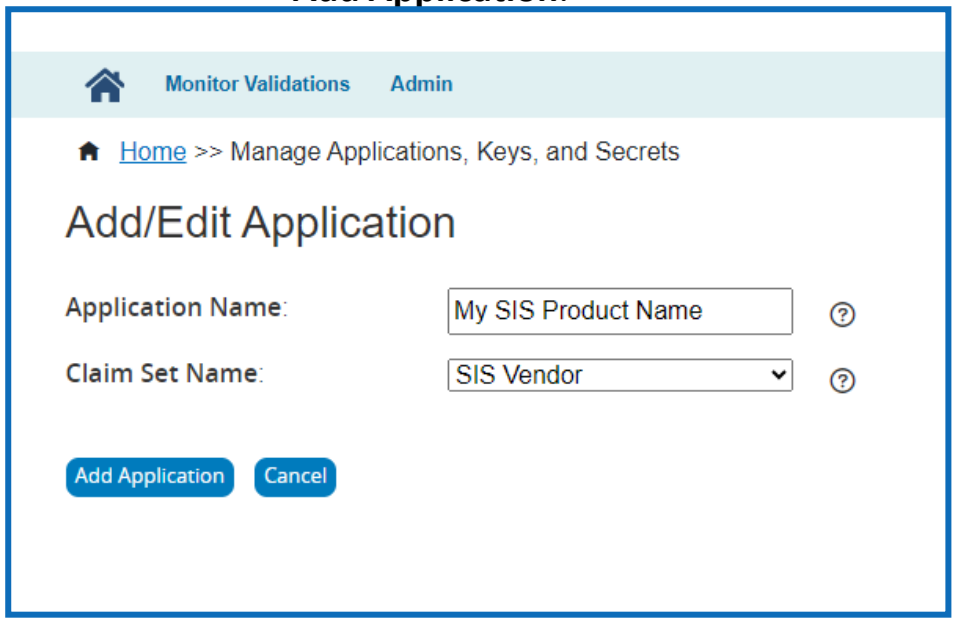
- The key and secret are **generated in the DMC** and are necessary for source system vendors to publish and read data.
- The key and secret can be regenerated at any time. When regenerated, the previous key and secret are no longer valid.

GENERATE KEY & SECRET

Steps 1 & 2

ADD APPLICATION & CLAIM SET

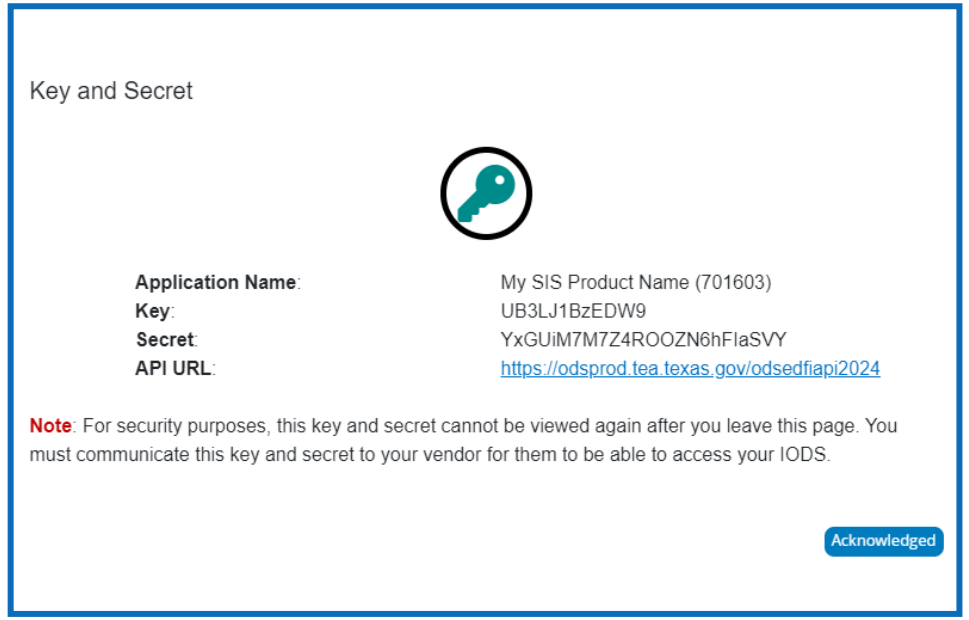
1. Enter a unique and descriptive application name for each source system vendor and/or vendor product as necessary.
2. Assign the appropriate claim set. Click **Add Application**.



Steps 3 & 4

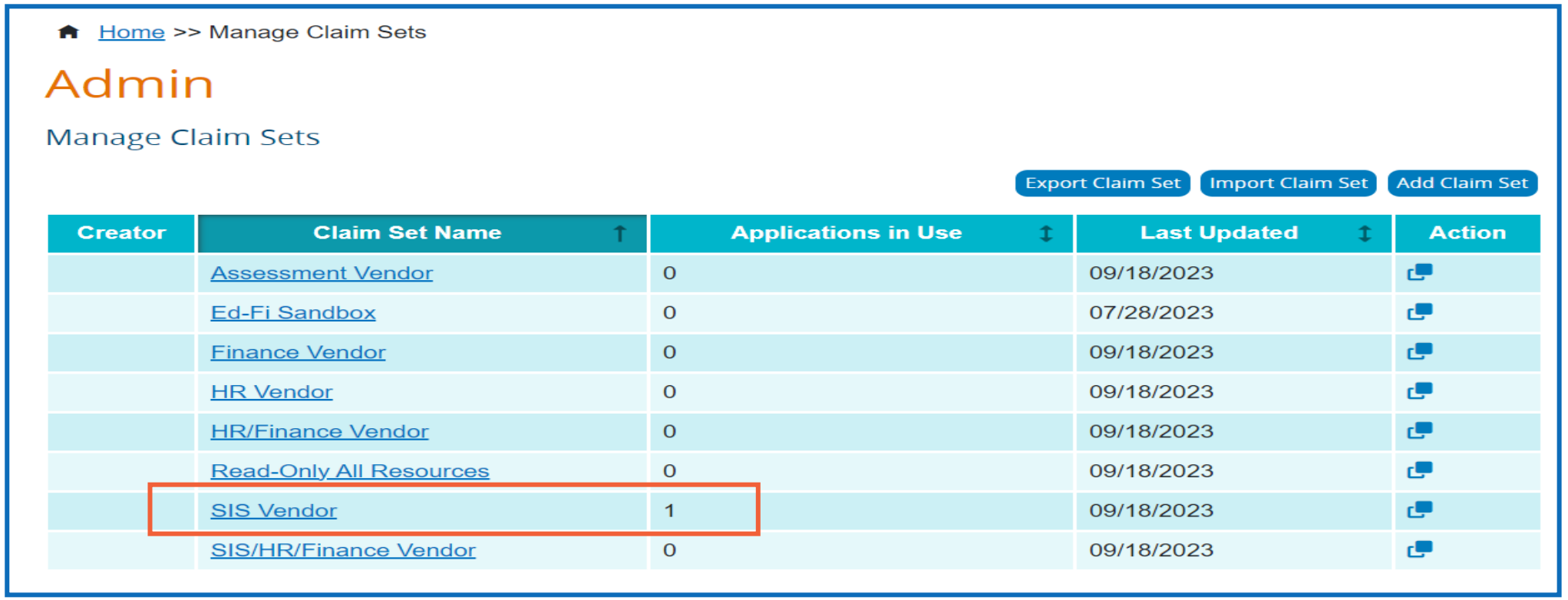
GENERATE KEY & SECRET

3. Generate the key & secret for the application.
4. Provide information to the vendor for **authentication** to the API. Click Acknowledged.



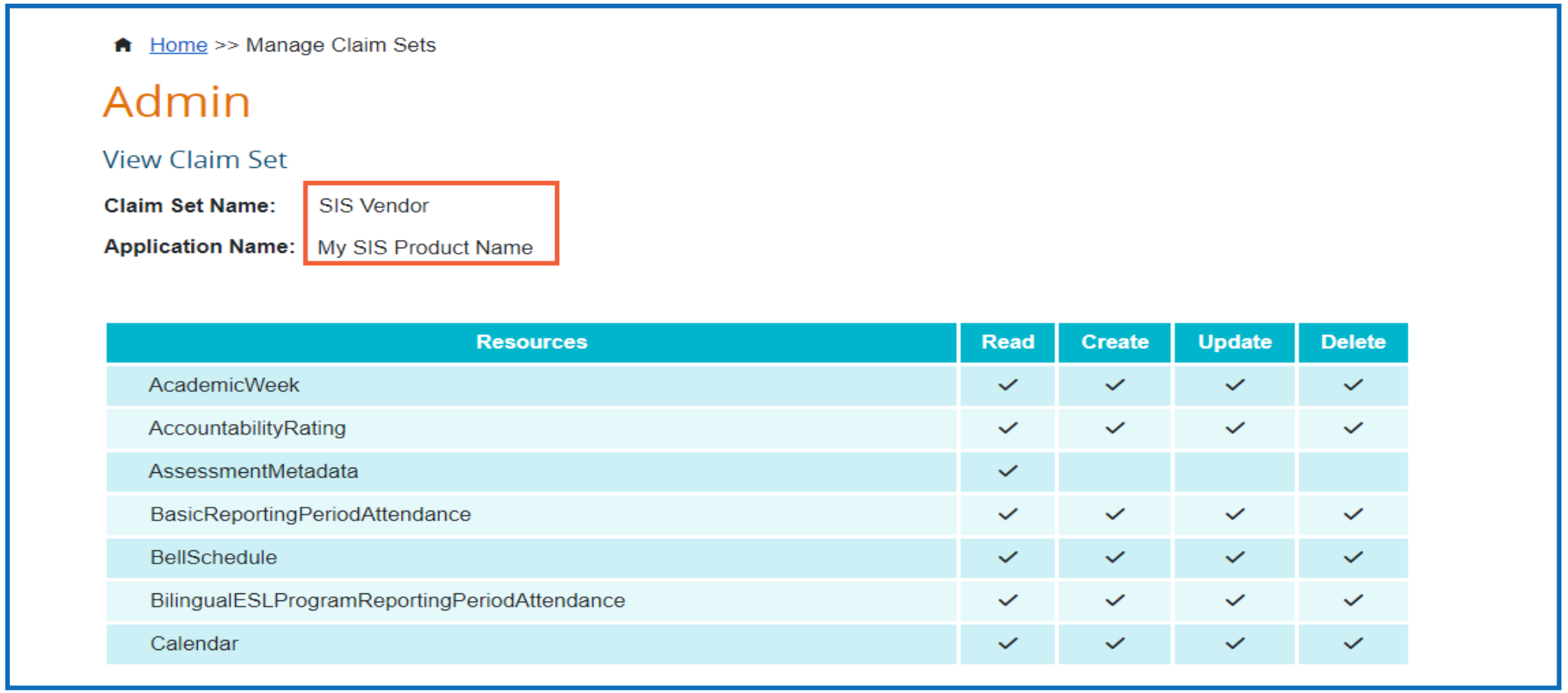
MANAGE CLAIM SETS

- The Manage Claim Sets UI in the DMC allows users to see the claim sets they have assigned.
- Clicking on the Claim Set Name will allow users to see the access granted to each resource within the claim set.



VIEW CLAIM SETS

- Upon the selection of a specific claim set, the appropriate access is shown for each resource.



Home >> Manage Claim Sets

Admin

View Claim Set

Claim Set Name: SIS Vendor

Application Name: My SIS Product Name

Resources	Read	Create	Update	Delete
AcademicWeek	✓	✓	✓	✓
AccountabilityRating	✓	✓	✓	✓
AssessmentMetadata	✓			
BasicReportingPeriodAttendance	✓	✓	✓	✓
BellSchedule	✓	✓	✓	✓
BilingualESLProgramReportingPeriodAttendance	✓	✓	✓	✓
Calendar	✓	✓	✓	✓



TRAINING ACTIVITIES

Demo, Practice, Troubleshooting, Knowledge Checks

DEMONSTRATION

1. Log into a TSDS Portal.
2. Navigate to DMC.
3. Hover over Admin tab and click Manage Applications, Keys, and Secrets.
4. Select Add Application, enter Application Name, and select the Claim Set. Click Add Application and then Save.
5. Review Claim Sets and Resources for the Claim Set.
6. Edit Claim Set.
7. Regenerate key and secret.

Note: The Reference Guide is a resource that provides step-by-step instructions for Managing Applications, Keys, and Secrets.

Link to Security Management Reference Guide

PRACTICE EXERCISE

Task 1: Set up vendor application in the DMC and assign the appropriate access to the IODS.

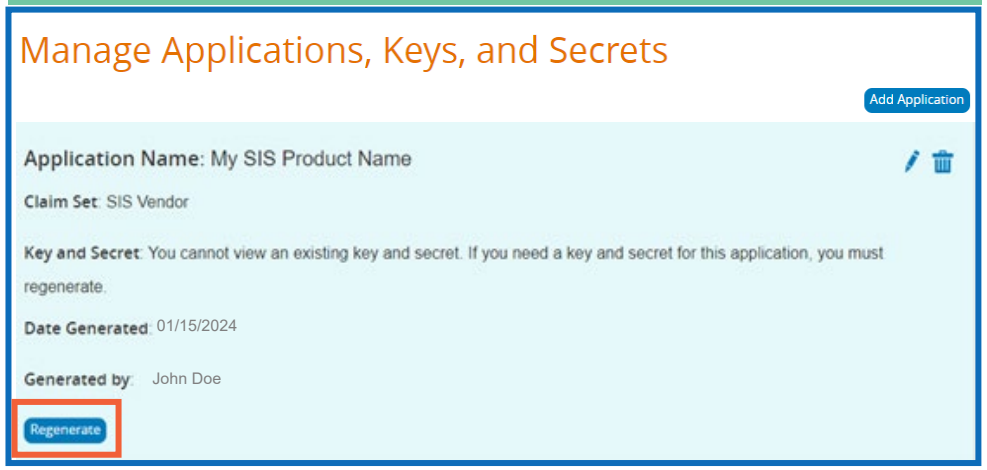
Task 2: Change the IODS access for the current vendor product (update name as needed).

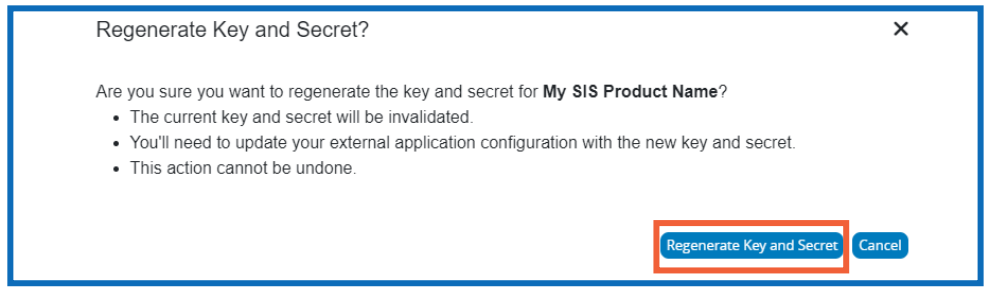
Task 3: Regenerate the key and secret (as needed).

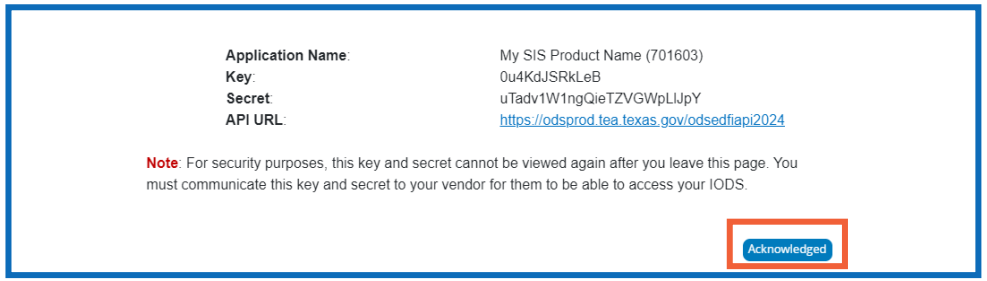


TROUBLESHOOTING

Scenario 1: Key and Secret information was not captured.







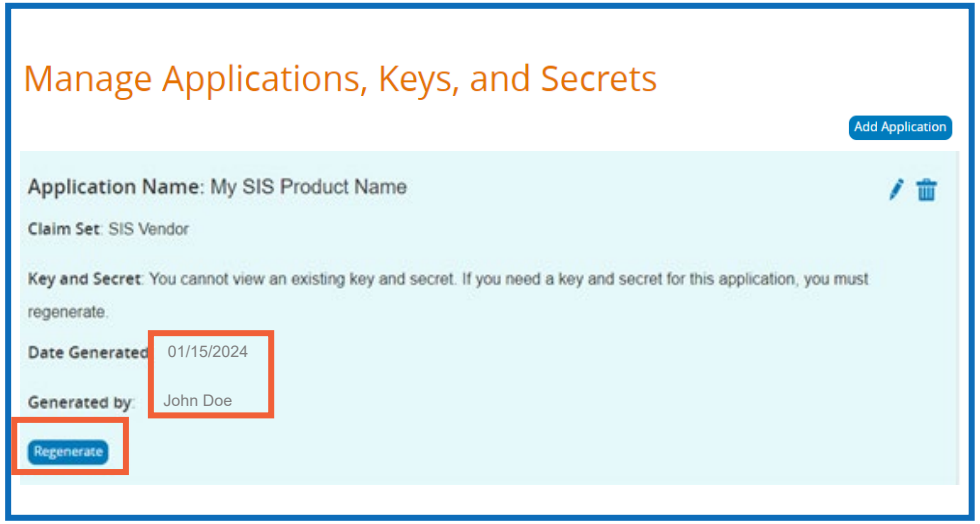
Resolution Steps:

- Login to TEAL, then TSDS Production Portal, and navigate to the DMC. Hover over the Admin tab and select Manage Applications, Keys, and Secrets.
- Click **Regenerate** on the appropriate Application.
  - The previous key and secret will no longer be valid.
- Read the information in the pop-up dialog box.
- Click **Regenerate key and secret**.
- The key and secret dialog box will provide the new credentials to provide to the vendor. Once provided, click **Acknowledged**.

TROUBLESHOOTING

Scenario 2: User gets a Level 1 API error.

Level 1 API Error might read something like:
"Provided Username and Secret Key is either incorrect or has expired."

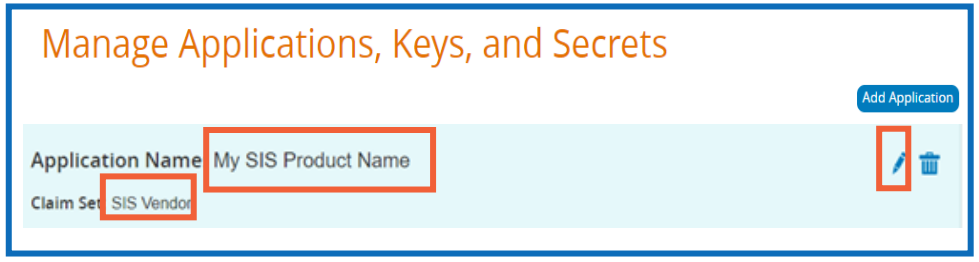


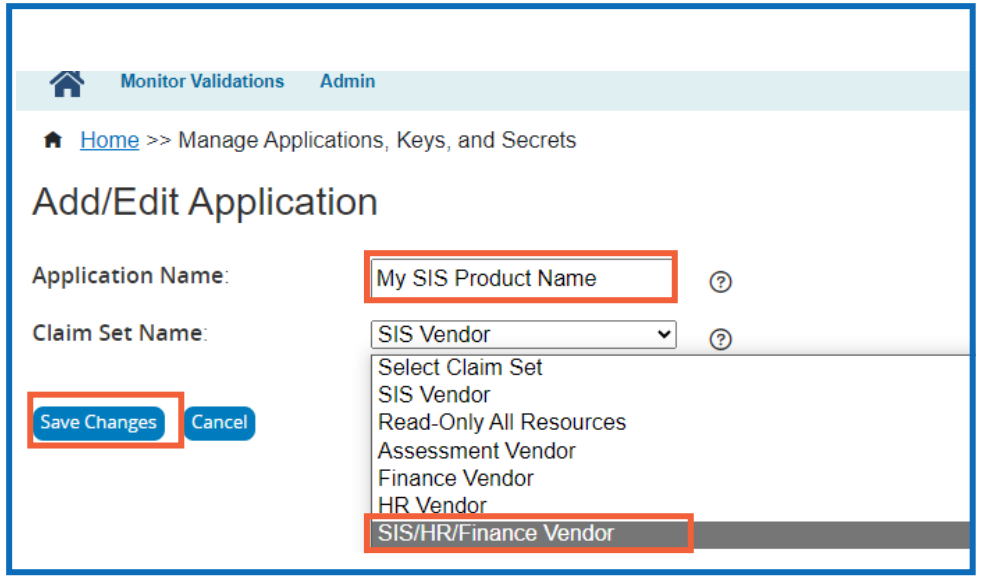
Resolution Steps:

- Vendor is using an invalid key and secret.
- Note the date the key and secret was generated and by whom to help in determining if a new Key/Secret has been generated but was not communicated to the Vendor.
- Determine which individuals at the LEA have the DMC LEA Technical TEAL role and decide if further restrictions or guidelines should be initiated.
- **Regenerate** the key and secret and **communicate the new key and secret to Vendor.**
- Instruct LEA staff who have the DMC LEA Technical Role on the importance of communication and verifying whether the Vendor already has an Application and key and secret.

TROUBLESHOOTING

Scenario 3: Assigned Wrong Claim Set to Application in DMC.





Resolution Steps:

- Log into TEAL, then TSDS Production Portal, and navigate to DMC. Select Manage Applications, Keys, and Secrets.
- Click the pencil icon to edit this Application.
- Update the Application Name, if necessary.
- Click on the dropdown arrow on Claim Set Name, select the appropriate claim set.
- Click **Save Changes**.
- **The key and secret originally assigned will continue to be valid but the access to resources will be updated.**

KNOWLEDGE CHECK

1. **Which of the following TEAL roles is needed to manage claim sets or generate a key and secret?**

   A. DMC LEA Admin Configurator
   B. DMC LEA Data Monitor
   C. DMC LEA Technical
   D. All of the above

Note: An LEA should limit the access to this role to only those responsible for configuring the IODS.

KNOWLEDGE CHECK

2. For TSDS reporting purposes, an LEA is not required to create a custom claim set.

A. True
B. False

Note: In most cases, the LEA would select a TEA pre-defined claim set when generating a key and secret for their vendor.

KNOWLEDGE CHECK

3. The following information is displayed in the DMC upon generating a key and secret.

A. Application Name
B. Key and Secret
C. API URL
D. All of the above

Note: Once **Acknowledged** is clicked, the LEA will no longer be able to view the key and secret.

KNOWLEDGE CHECK

4. Which of the following is not a reason to regenerate the key and secret for an application?

A. When **Acknowledged** is clicked without capturing the information
B. When Level 1 errors prevent the Vendor from connecting to your IODS
C. When the LEA is performing periodic security cleanup
D. When changing the claim set currently assigned to a Vendor

Note: Changing the claim set assigned on an Application for a Vendor does **not** require that the key and secret be regenerated.



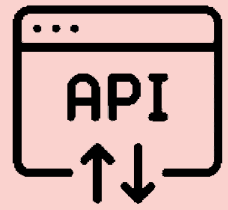
WRAP UP

Key Takeaways, Resources, and Next Steps

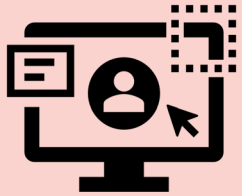
KEY TAKEAWAYS

The **DMC LEA Technical** role is required to manage an application, claim set, and key and secret in the DMC.

Access to the management of the key and secret should be **limited** and handled in a **secure** manner.



Source system vendors will utilize the key and secret to **access the IODS via the API**.



The application, claim set, and key and secret can be updated in the **DMC application**.

TRAINING RESOURCES

- Key Terms and Definitions
- Security Management Reference Guide

NEXT STEPS

Apply for the DMC LEA Technical role

- Utilize the training materials available for step-by-step instructions in the Reference Guide.
- Apply under the Texas Student Data System Portal Application.
- Monitor the approval process and follow up with the designated TEAL approver as needed.

Generate the key and secret

- Assign the appropriate claim set.
- Generate the key and secret necessary for each source system vendor product.
- Confirm that data is being published to the IODS as expected.

WRAP UP

In this training we talked about:

- The DMC LEA Technical role needed to manage security in the DMC application.
- The key concepts and definition of an application, claim set and key and secret.
- How to effectively add an application, assign a claim set, and generate a key and secret in the DMC application.

QUESTIONS

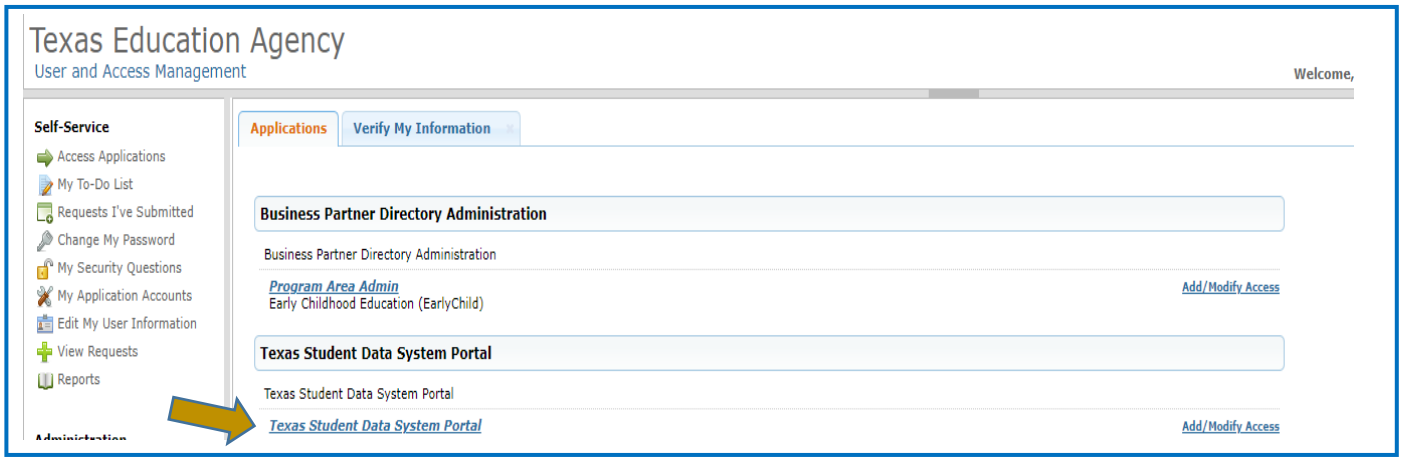


DMC Security Management Reference Guide

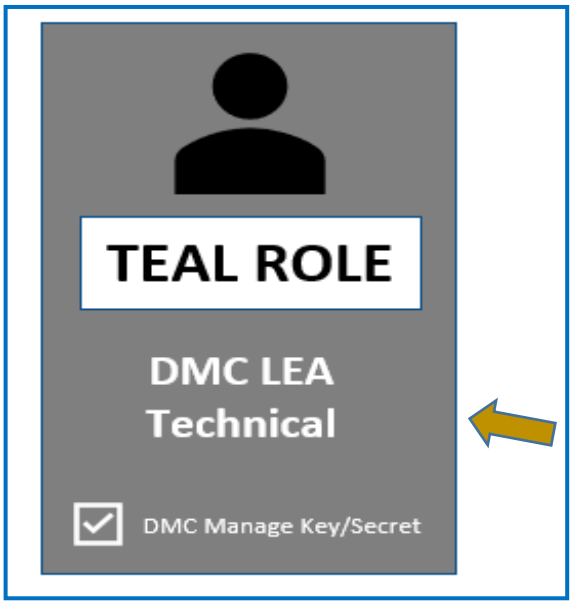
Target Audience: LEA and ESC Technical Staff who will perform the setup steps in the Data Management Center (DMC).

Purpose: This guide provides a list of steps for LEA and ESC personnel responsible for configuring the organization's Individual Operational Data Store (IODS) data permissions and security authorization within the DMC application. The key and secret generated is intended to be provided to source system vendor(s) in order to publish and access data to the IODS through API transactions.

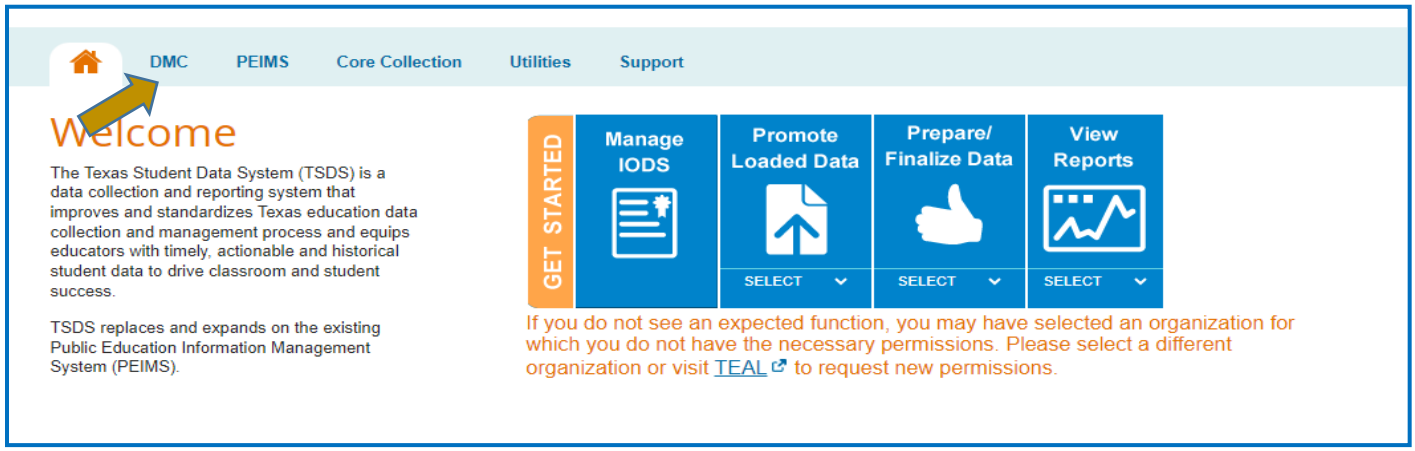
1. Log in to TEAL and navigate to the **Texas Student Data System Portal**.



2. Verify that you have requested the TEAL role **DMC LEA Technical** with the DMC Manage Key/Secret privilege checked by default.



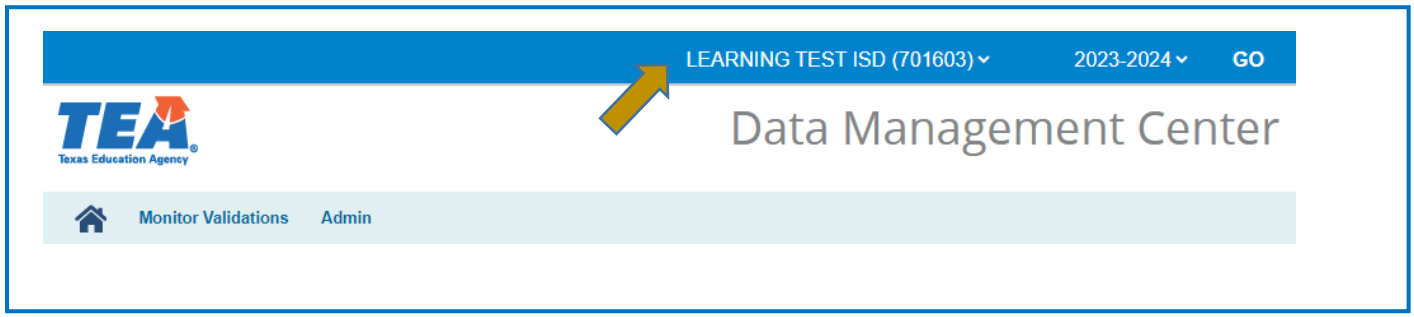
3. Click on **DMC** in the ribbon at the top of the screen.



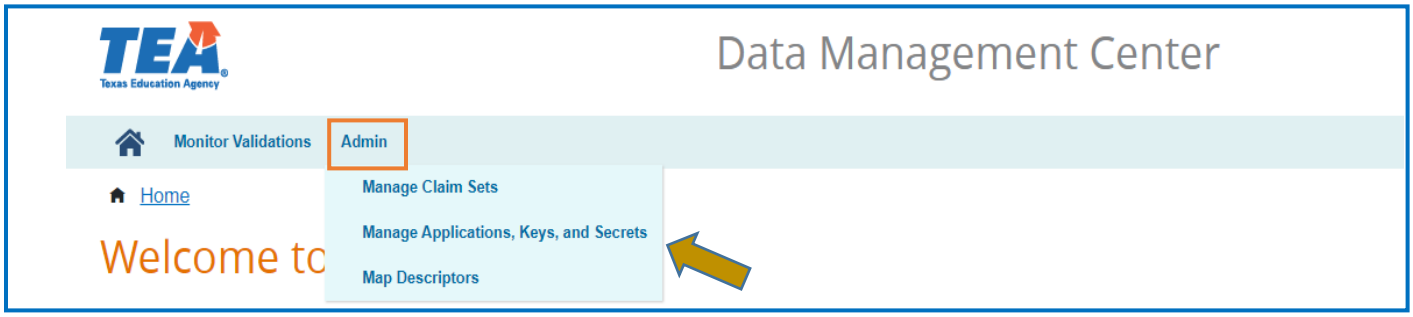
4. Click on the Manage IODS easy button to access the Data Management Center (DMC).



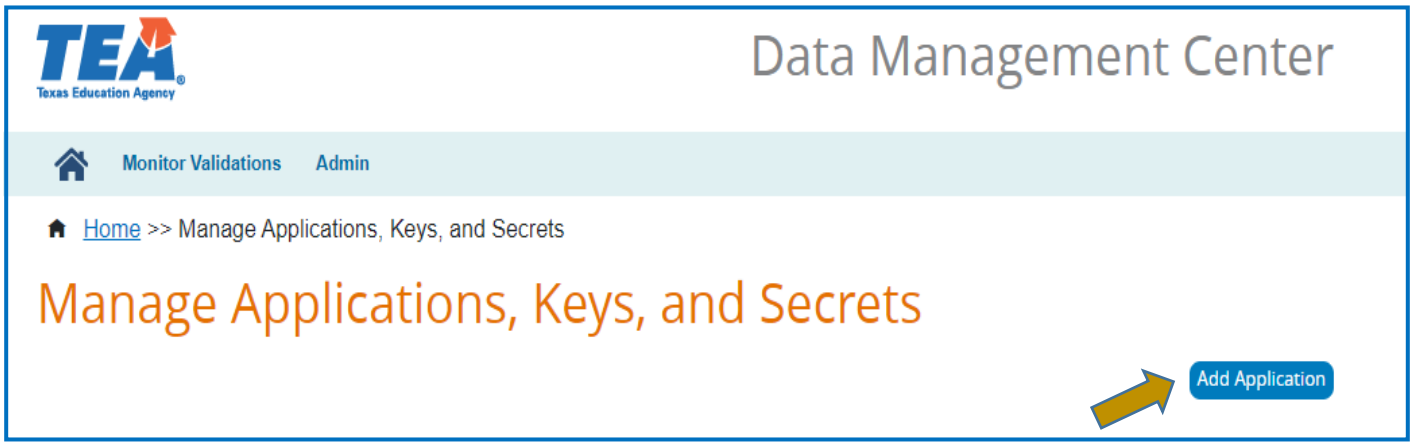
5. Upon accessing the DMC application, verify the organization and school year in the ribbon at the top right of the screen.



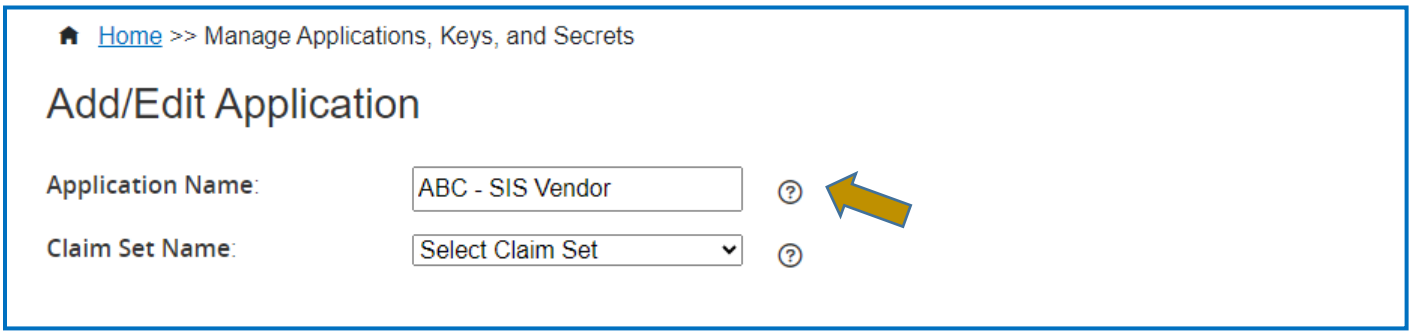
6. Hover over the **Admin** tab**,** click **Manage Applications, Keys, and Secrets.**



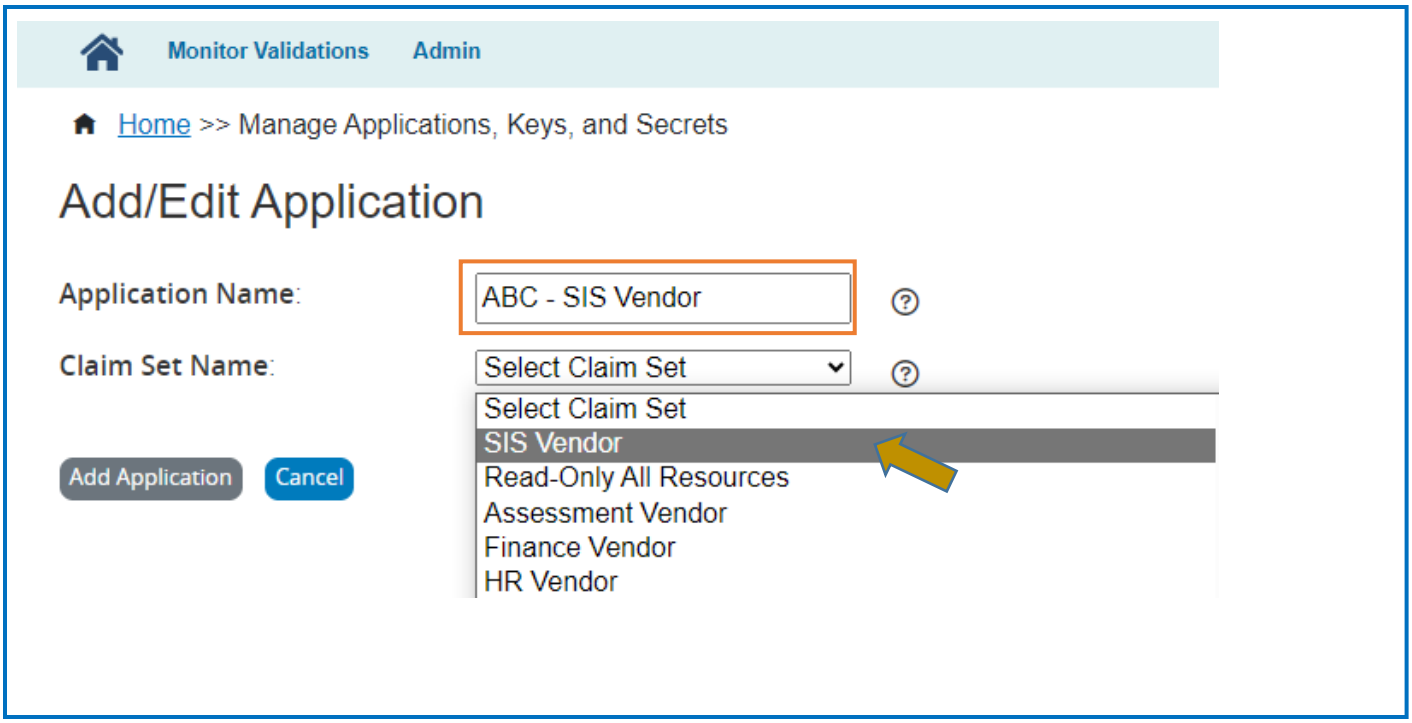
7. To generate the key and secret for a vendor application, click **Add Application**.



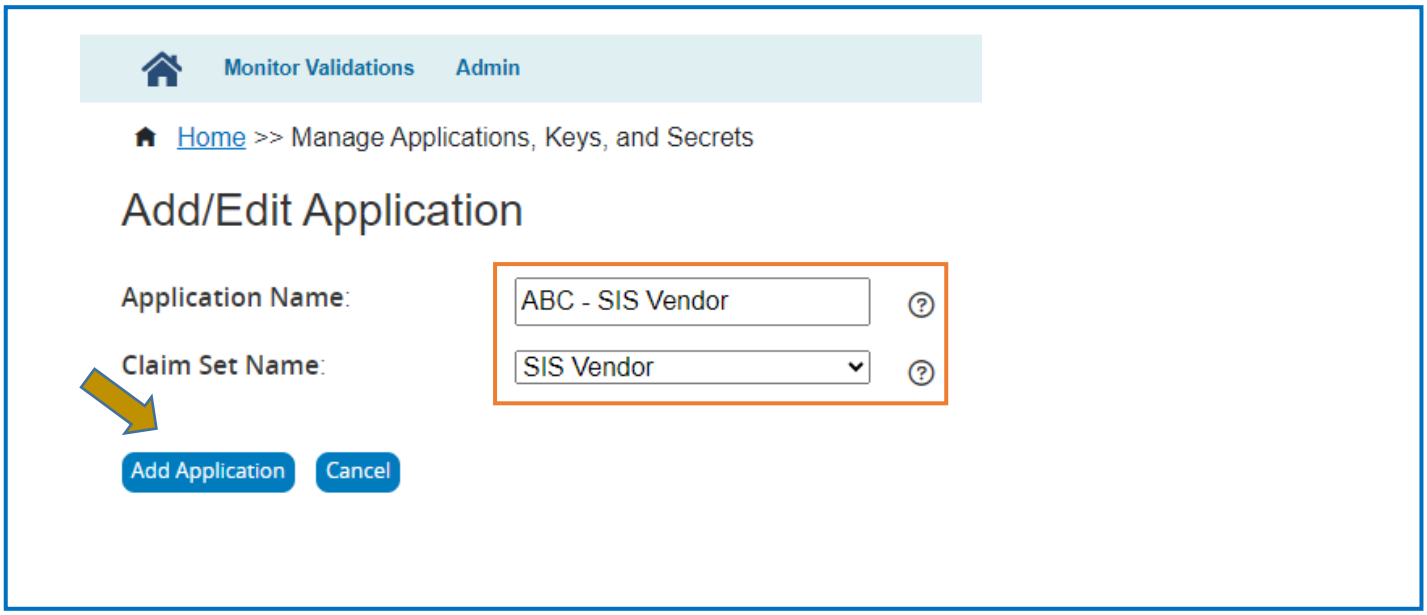
8. Enter the **Application Name**. The name should be unique and include the vendor product name, followed by the claim set or type of vendor. Format: Vendor Name - Type
   Example: ABC - SIS Vendor
   XYZ - HR/Finance Vendor
   Tester - Assessment Vendor



9. Select the appropriate Claim Set from the **Claim Set Name** dropdown menu. In our example we are generating the key and secret for ABC **SIS** Vendor so we would select the **SIS Vendor Claim Set**.



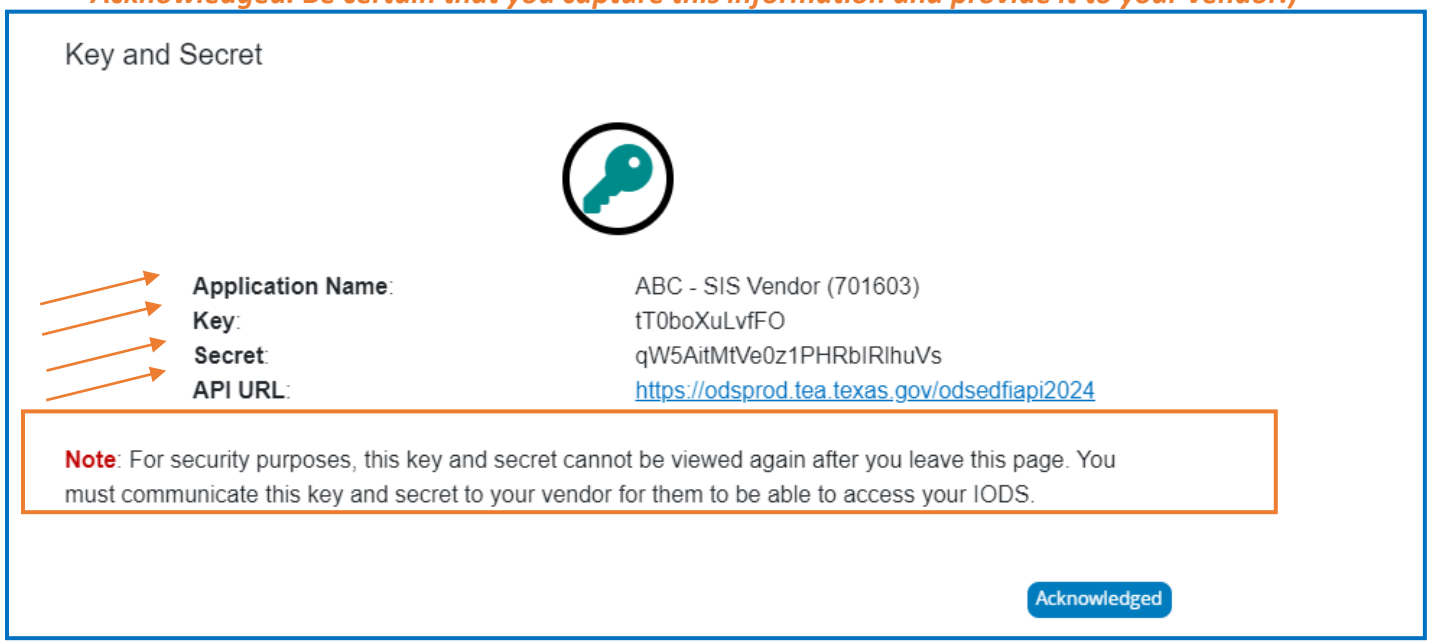
10. Verify the Application Name and Claim Set Name, click **Add Application**.



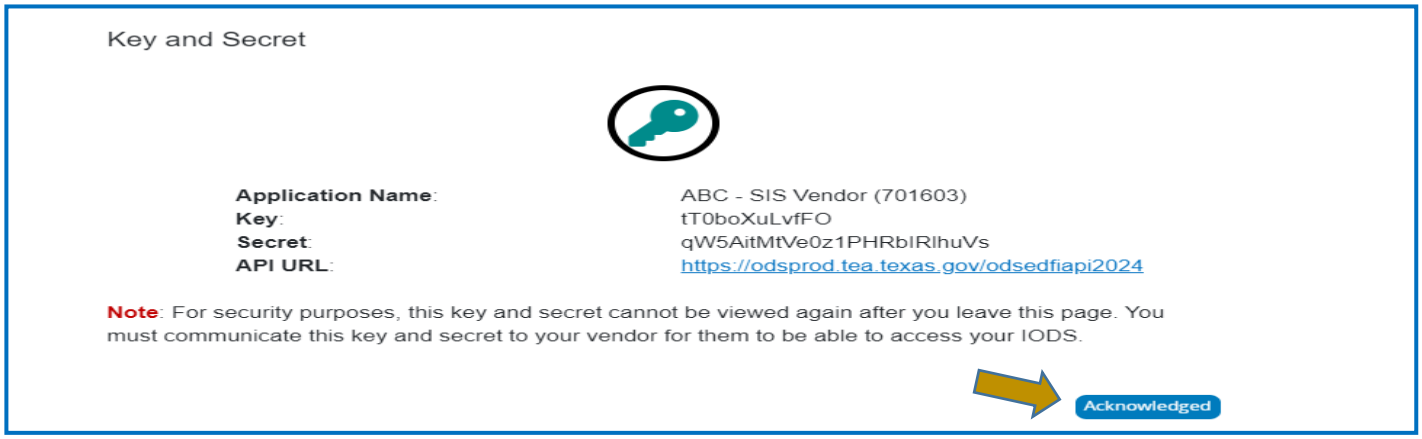
11. Click **Save** when prompted on the Save Application Changes dialog box.



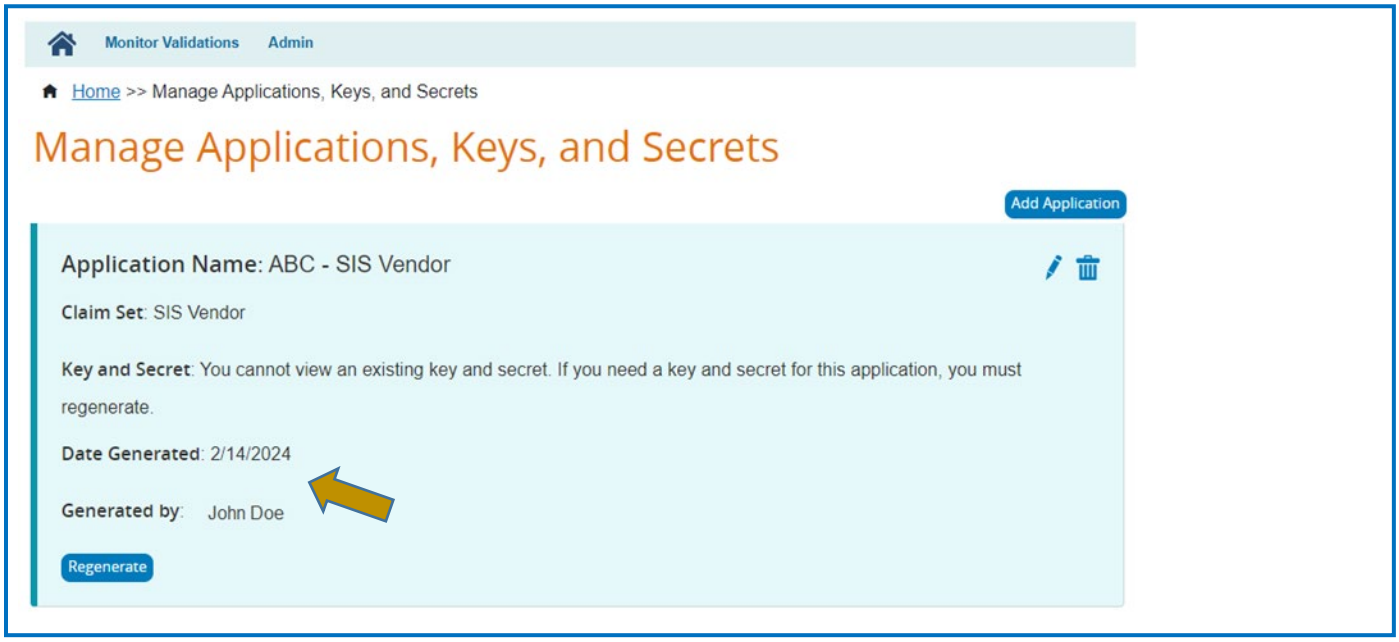
12. The **Key and Secret** dialog box will appear with the generated key and secret credentials. These credentials will allow the vendor to access and publish data in the IODS.
(Review the Note indicating that this key and secret cannot be viewed again after you click Acknowledged. Be certain that you capture this information and provide it to your vendor.)



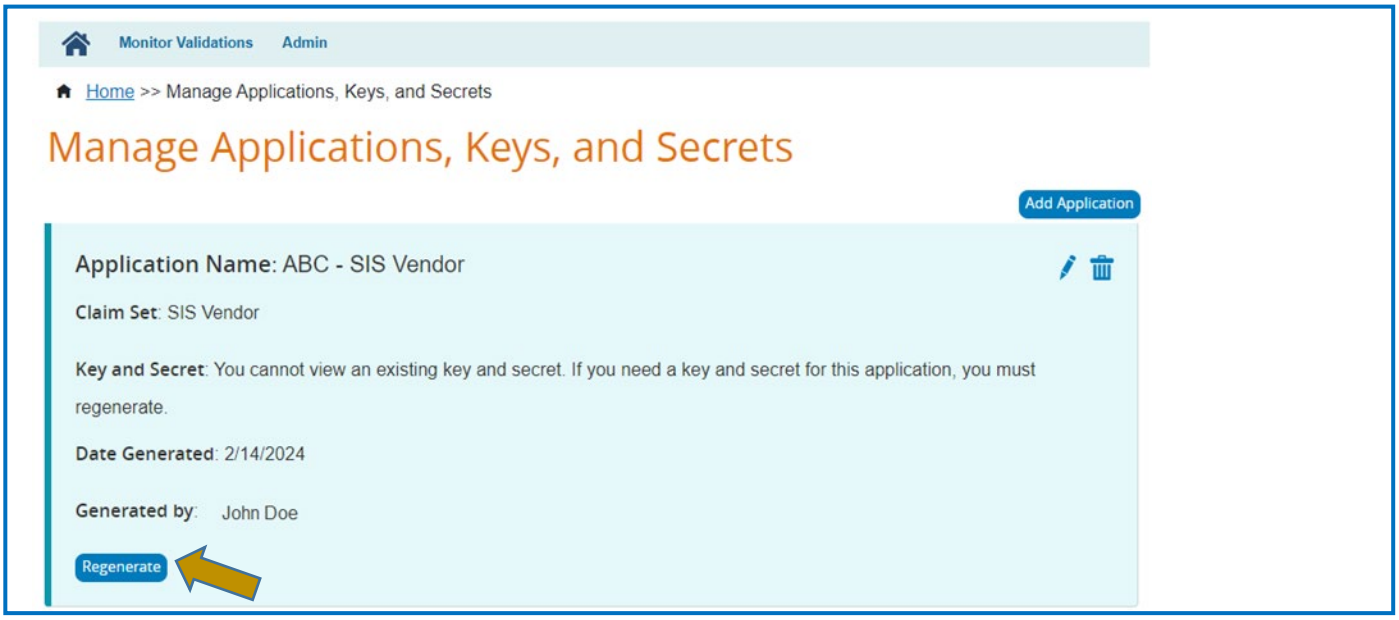
13. Upon having provided this information to the vendor and/or securely storing this information as per your local district technology security policy, click **Acknowledged.**



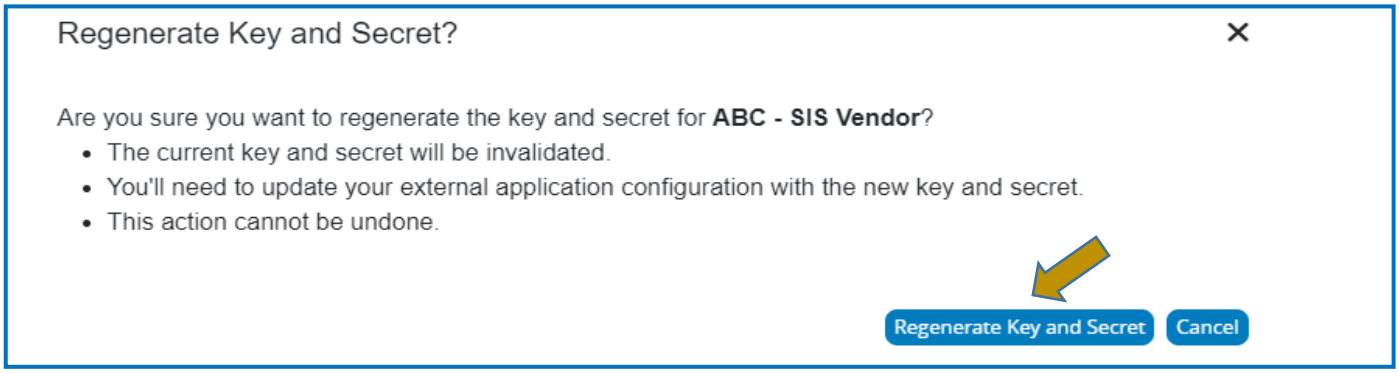
14. Verify the Application was added on the Manage Applications, Keys, and Secrets screen. (Notice the Date Generated and Generated By information.)



15. If your vendor is unable to publish data or if you did not capture the key and secret information, you can Regenerate the key and secret. This action will make the previous key and secret invalid. Click **Regenerate** on the Application.



a. On the next screen review the information and click **Regenerate Key and Secret** if that is the desired action.

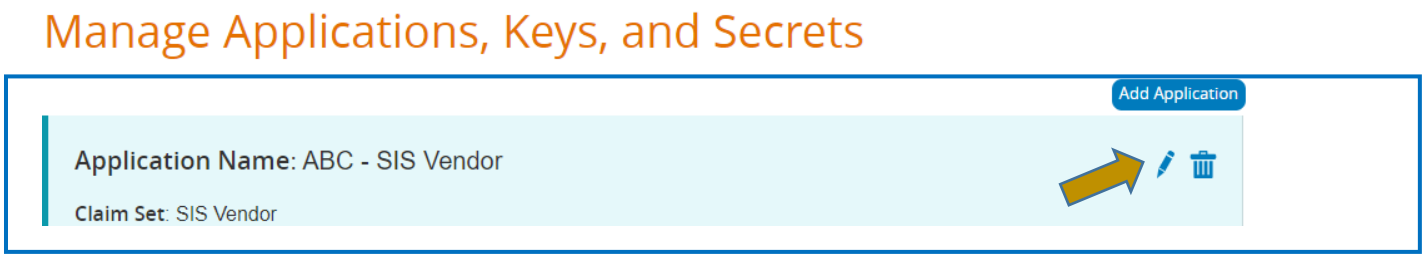


b. The pop-up box will provide the new key and secret information. Provide the new security information to your vendor. Click **Acknowledged**.



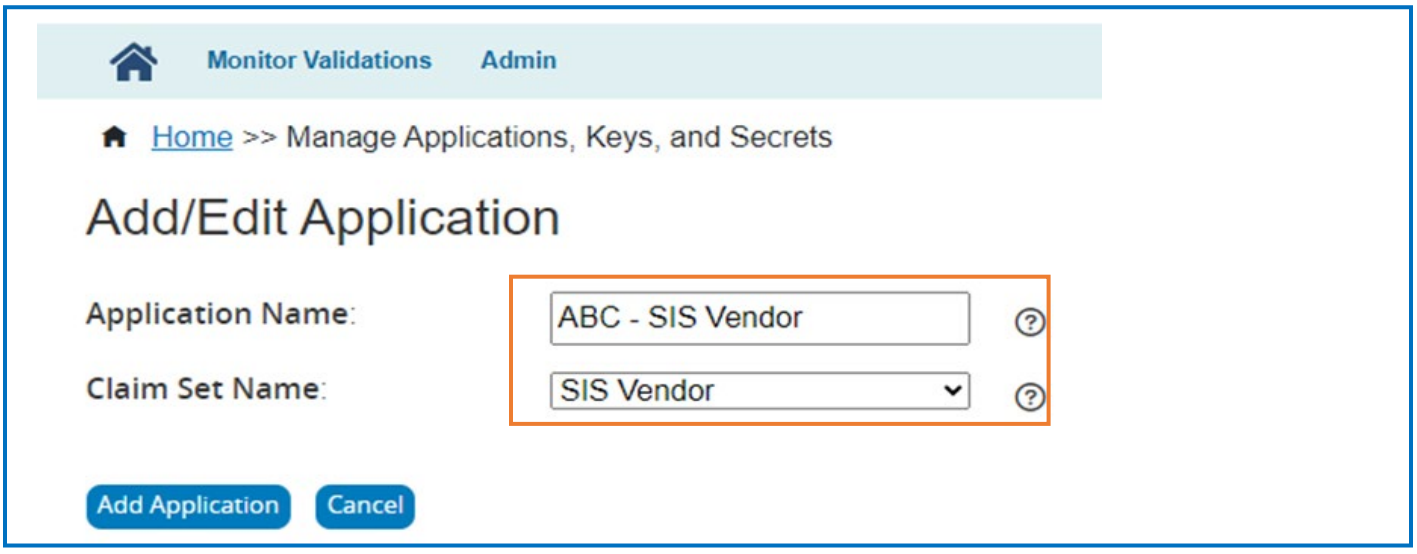
16. Users can edit or delete an Application.

a. Edit – If you find the application name or the claim set assigned should be updated, click the **pencil icon**. Editing the application will ***NOT*** alter the currently assigned key and secret information for the application. Click **Save Changes** to update the application.

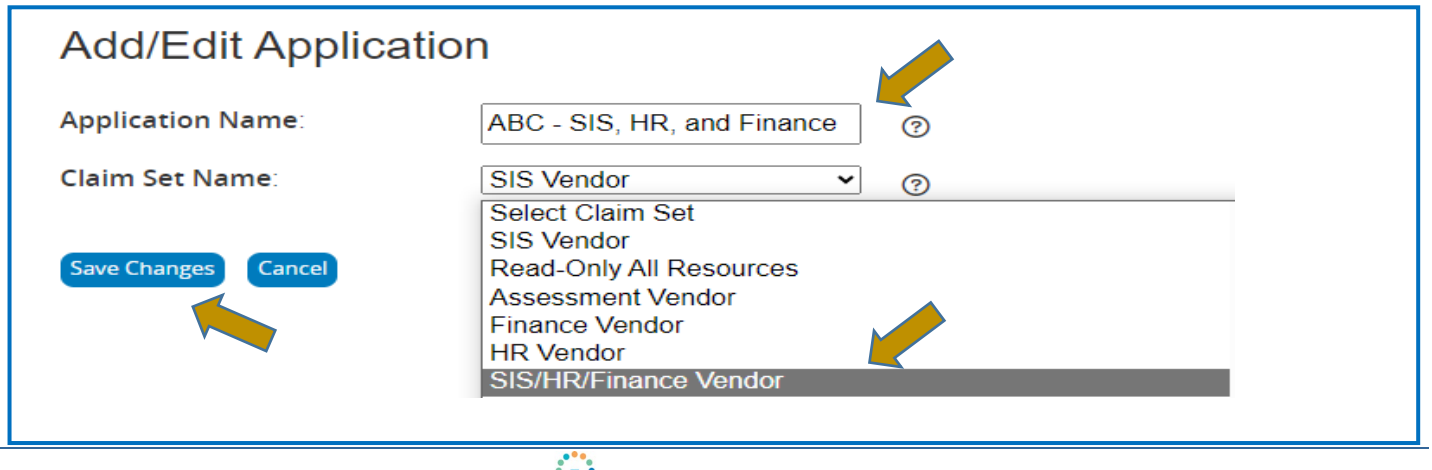


b. On the Add/Edit Application screen, enter the new Application Name and/or select the new Claim Set Name from the dropdown menu. Click **Save Changes** to update the application.

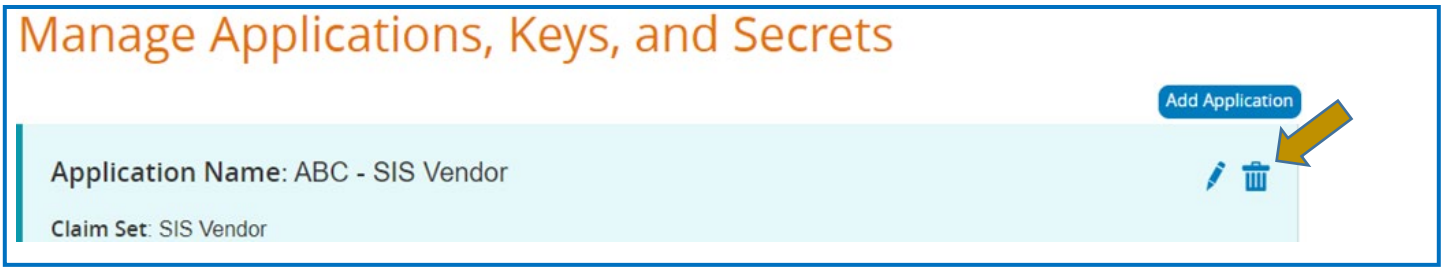
Original Application Name and Claim Set Name

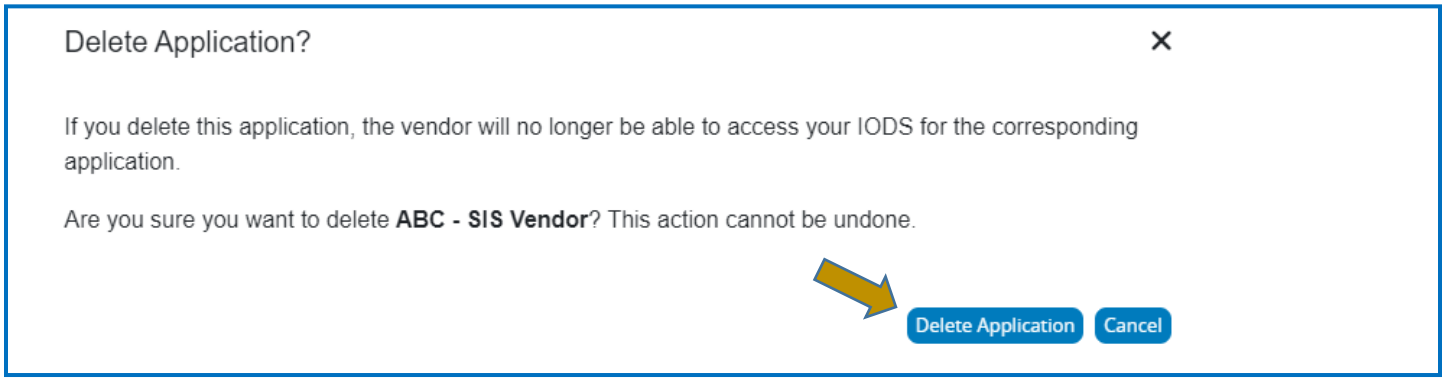


Edited Application Name and Claim Set Name

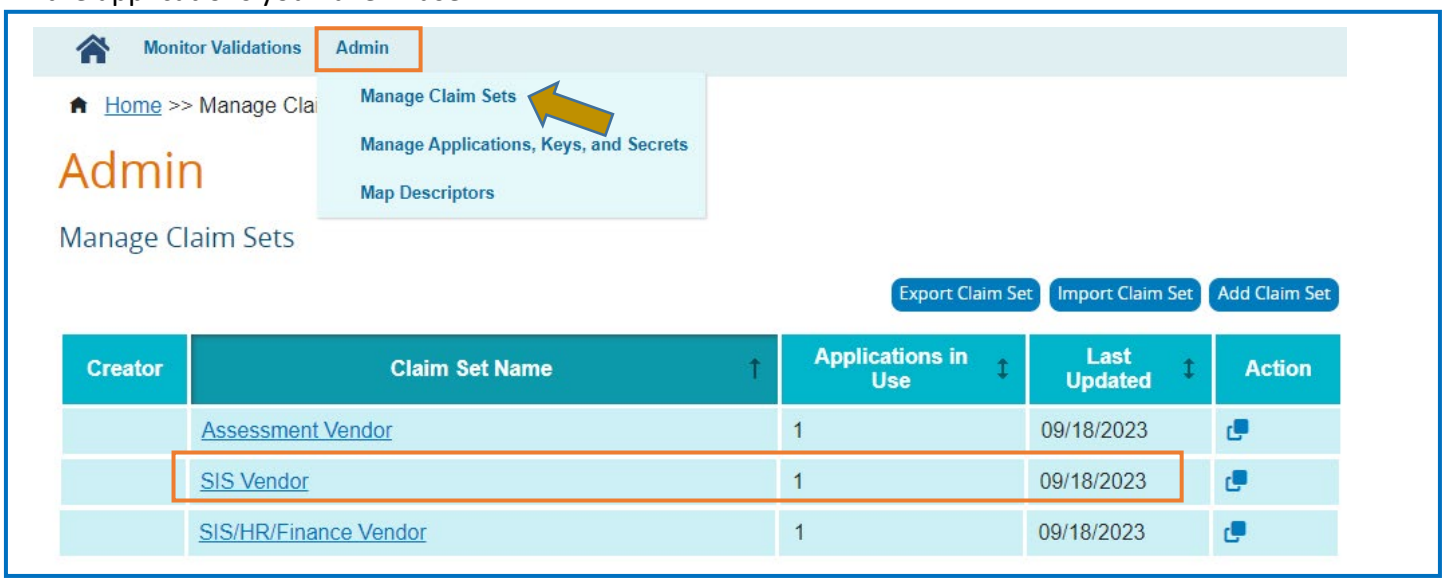


c. Delete – An application can be deleted if it is determined the application was created by mistake or is no longer needed. Click the **trash can icon** to delete an application. Read the pop-up dialog box carefully and click **Delete Application** is that is the action that should take place.

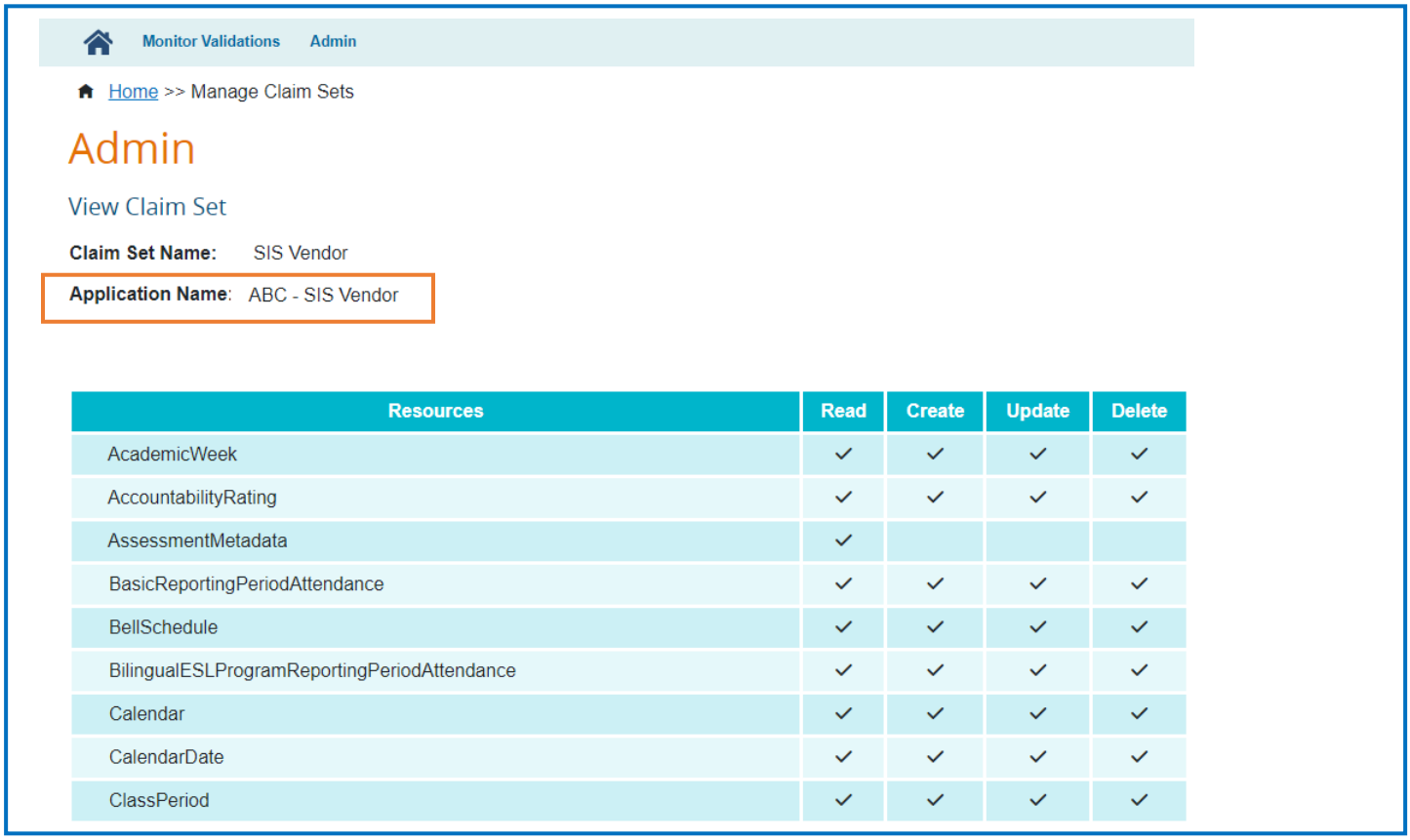




17. At this point, you can hover over the **Admin** tab and click **Manage Claim Sets**. This will allow you to view the applications you have in use.



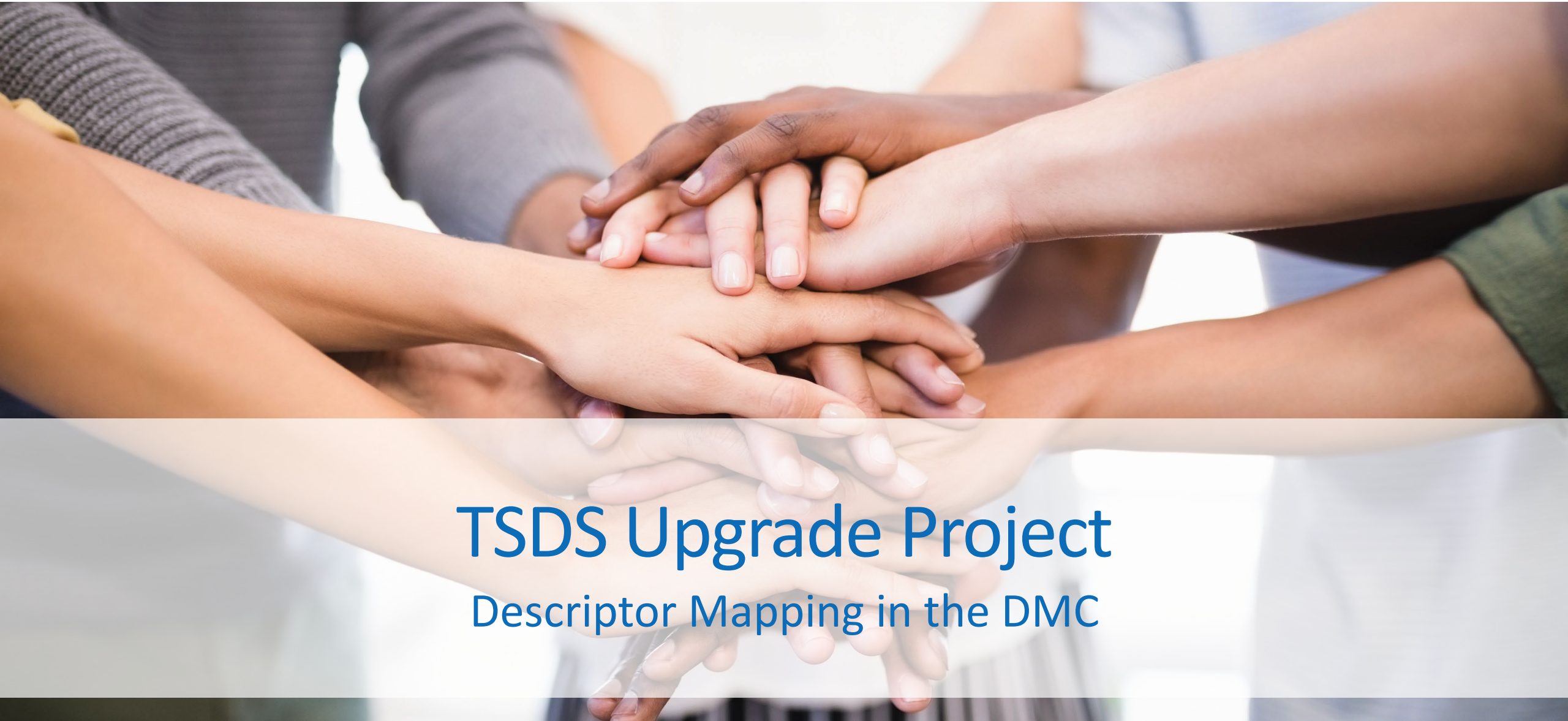
18. On the Manage Claim Sets screen above, you can click on **SIS Vendor** to view the claim set resources that this claim set will allow the vendor to access and the level of access in the IODS (i.e., read, create, update, delete).



Resources	Read	Create	Update	Delete
AcademicWeek	✓	✓	✓	✓
AccountabilityRating	✓	✓	✓	✓
AssessmentMetadata	✓			
BasicReportingPeriodAttendance	✓	✓	✓	✓
BellSchedule	✓	✓	✓	✓
BilingualESLProgramReportingPeriodAttendance	✓	✓	✓	✓
Calendar	✓	✓	✓	✓
CalendarDate	✓	✓	✓	✓
ClassPeriod	✓	✓	✓	✓

Communicate with your vendor to determine next steps to begin data publishing to your IODS! **Your data should begin publishing to your IODS.**

Continue adding applications for each of your vendor products as outlined above.



TSDS Upgrade Project

Descriptor Mapping in the DMC

KEY TERMS

Application Programming Interface (API)
Data Management Center (DMC)
Descriptor Value
Descriptor Mapping
Ed-Fi Data Standard
Namespace
Texas Education Data Standards (TEDS)

You can find the definitions to these key terms and more here: Link to Key Term Document

LEARNING OBJECTIVES

By the end of this course, the user will be able to explain:

- The TEA Login (TEAL) role and privilege needed to map descriptors in the Data Management Center (DMC).
- The definition of a descriptor mapping.
- How to map Ed-Fi and/or local descriptors defined descriptor values in the DMC for TSDS state reporting.

WHY IS THIS COURSE IMPORTANT

- To understand how to access the DMC to **map Ed-Fi and/or local descriptors** loaded into the LEA's Individual Operational Data Store (IODS) to TEA descriptors necessary for TSDS state reporting.

COURSE AGENDA

GETTING STARTED
Apply for DMC LEA Data Monitor Role

KEY CONCEPTS
Descriptor Mapping, Namespace Types, When to Map

Training Activity
Demo, Practice, Troubleshooting, Knowledge Checks

WRAP-UP
Key Takeaways, Resources, and Next Steps



tsds texas student data system

GETTING STARTED

Apply for DMC LEA Data Monitor Role

TEAL ROLE AND FUNCTIONALITY



LEA TEAL ROLE

- **LEA Technical Administrator:**
  - DMC LEA Data Monitor



KEY FUNCTIONS

- **Administrator Functionality:**
  - Map Descriptor Values

REQUESTING TEAL ACCESS

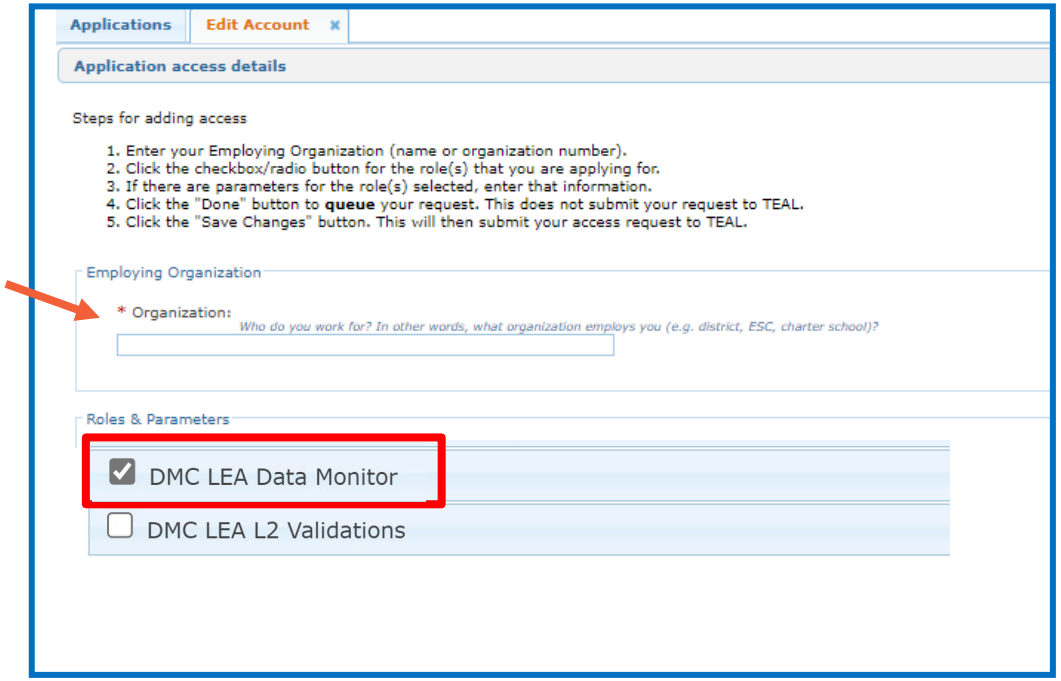
Please refer to the LEA TEAL Roles and Privileges training material if you need more information on:

1. Requesting Access to the TSDS Portal
2. Applying for the TEAL Roles.

APPLY FOR DMC LEA DATA MONITOR ROLE

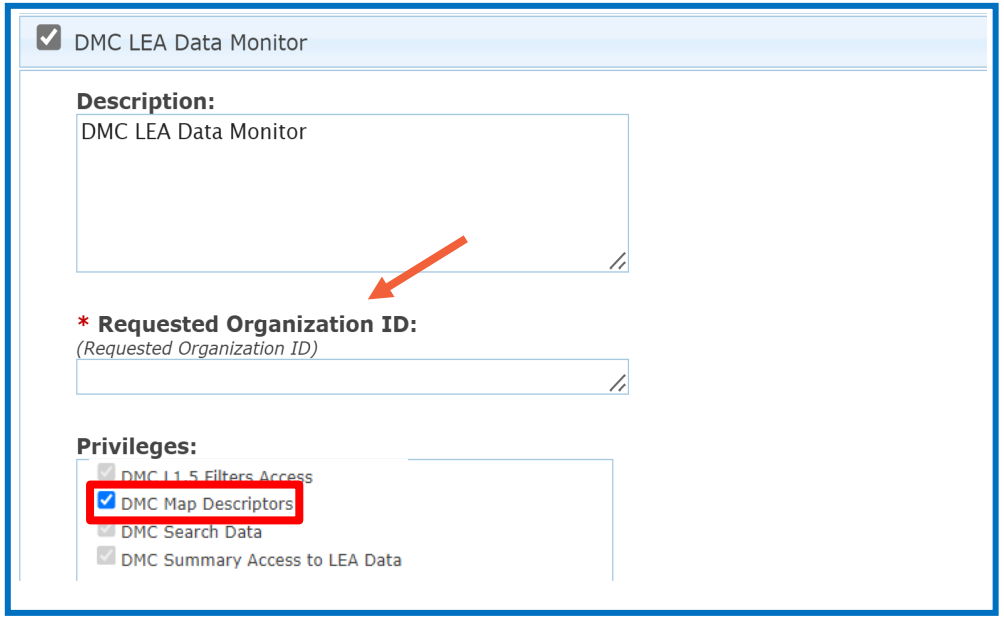
STEP 1:

Enter your **Employing Organization** and select the **DMC LEA Data Monitor** role.



STEP 2:

Enter the **Requested Organization** in the *Requested Organization ID* field, select the **DMC Map Descriptors** privilege and click **Done**. Click **Save Changes**.





KEY CONCEPTS

Descriptor Mapping, Namespace Types, When to Map

WHAT IS DESCRIPTOR MAPPING?

- Functionality within the DMC that allows an LEA to **map Ed-Fi and/or local descriptor values** loaded into the LEA's IODS to **TEA descriptor values** necessary **for TSDS state reporting**.
  - An LEA's vendor may also provide this functionality through the API.

- If the descriptor value is **not intended to be reported to TSDS**, then the LEA should map it to be "**excluded" from TSDS state reporting.**

- The namespace(s) the LEA's vendor(s) use will determine if mapping is required.
  - Ed-Fi, Local, and/or TEA Namespace
  - Work with your vendor to understand the namespace(s) being used.

TYPES OF NAMESPACES

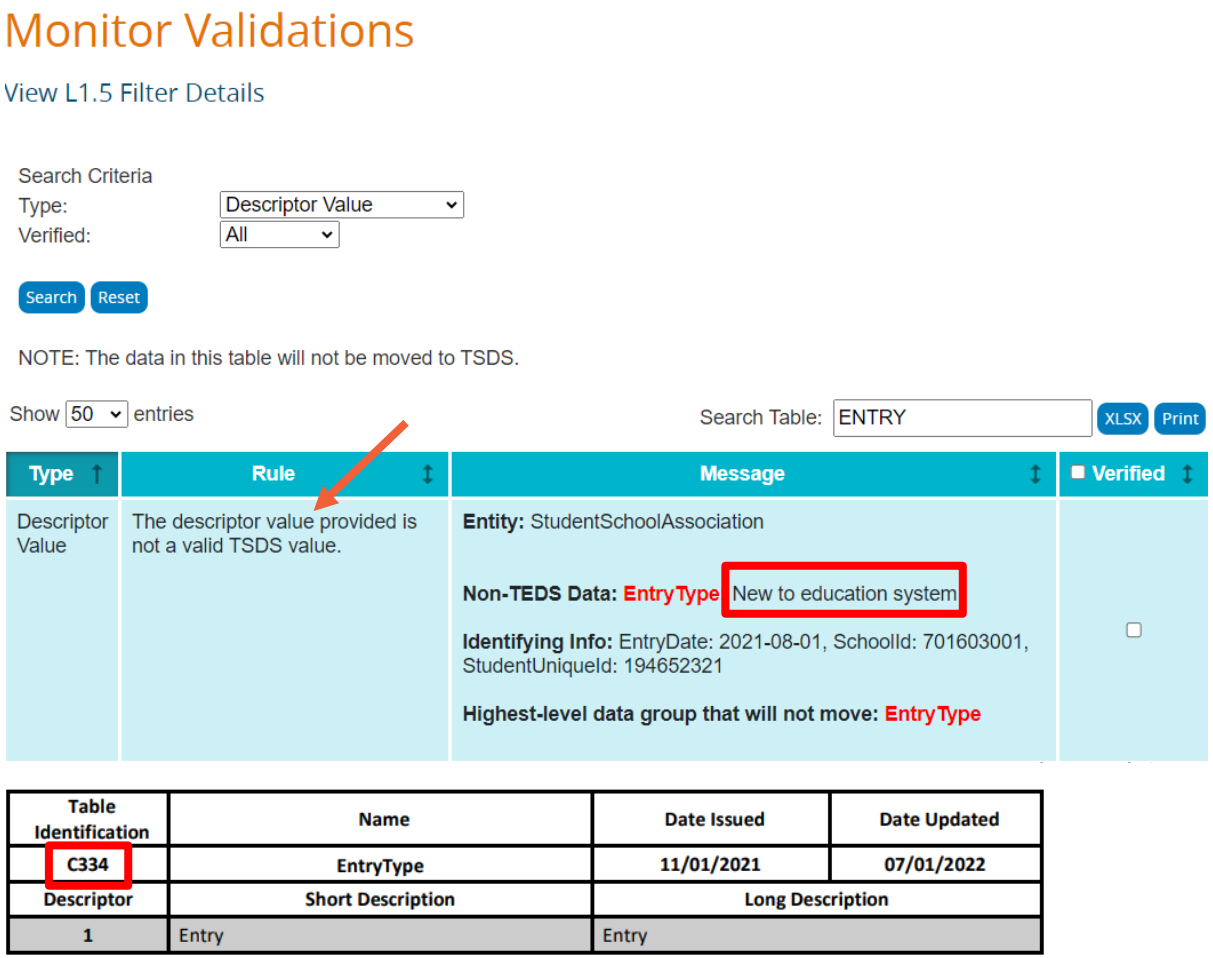
TEA

- TEDS-compliant descriptor values
- Do not trigger Level 1.5 Descriptor Value filters
- Do not require DMC or API mapping to make the data available for TSDS state reporting
- Allows data promotion to TSDS for state reporting without the need for any mapping

ED-FI/LOCAL

- Ed-Fi/Local descriptor values
- Triggers Level 1.5 Descriptor Value filters until the descriptor is mapped
- Requires DMC or API mapping to make the data available for TSDS state reporting and clear the Level 1.5 filters
- Allows for the Ed-Fi/Local descriptor values to be used for local use

CAUSES FOR MAPPING



Monitor Validations

View L1.5 Filter Details

Search Criteria
Type: Descriptor Value
Verified: All

Search Reset

NOTE: The data in this table will not be moved to TSDS.

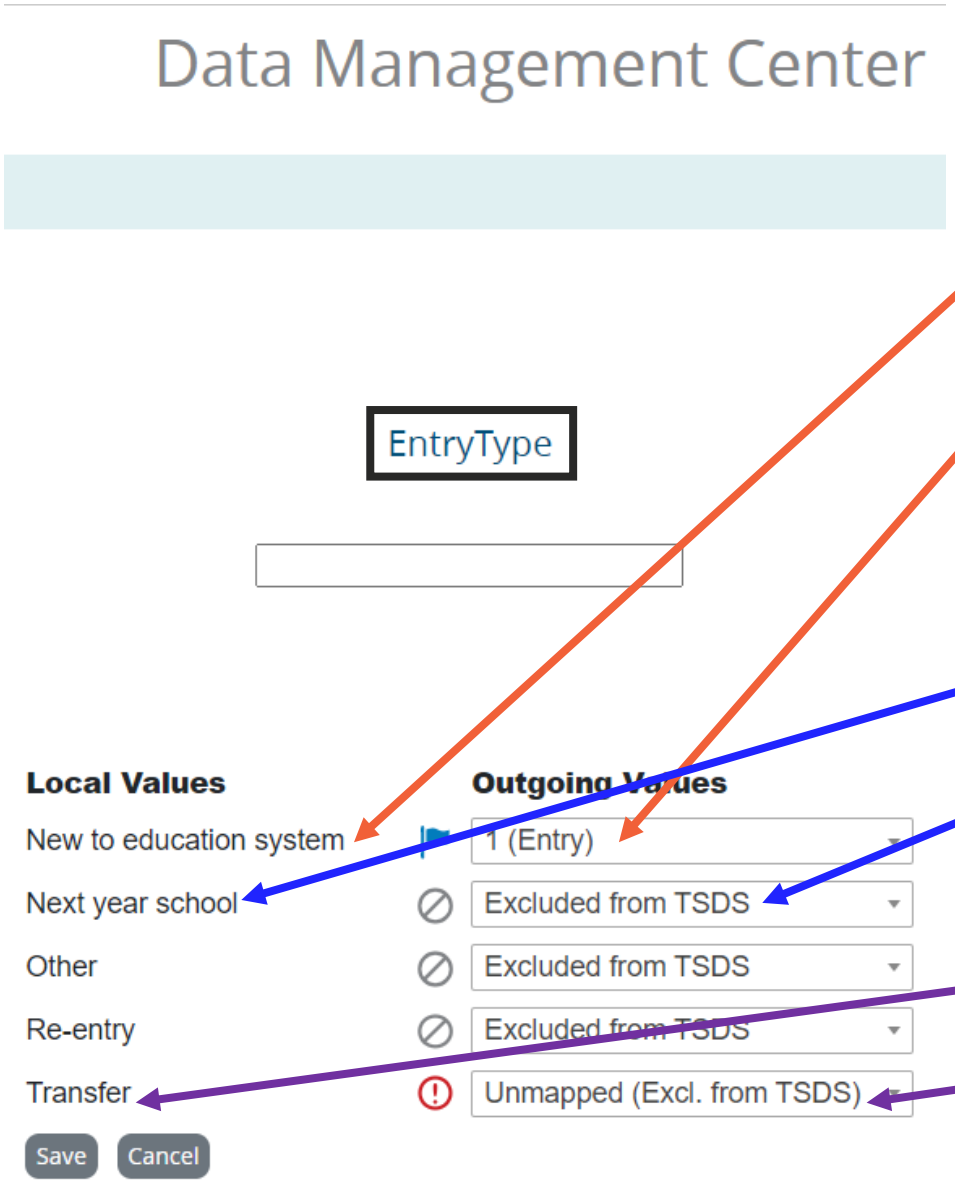
Show 50 entries Search Table: ENTRY XLSX Print

Type	Rule	Message	Verified
Descriptor Value	The descriptor value provided is not a valid TSDS value.	**Entity:** StudentSchoolAssociation **Non-TEDS Data:** EntryType New to education system **Identifying Info:** EntryDate: 2021-08-01, SchoolId: 701603001, StudentUniqueId: 194652321 **Highest-level data group that will not move:** EntryType	☐

Table Identification	Name	Date Issued	Date Updated
C334	EntryType	11/01/2021	07/01/2022
Descriptor	**Short Description**	**Long Description**	
1	Entry	Entry	

- If the LEA's vendor is using a namespace other than the TEA namespace, the LEA will need to map those descriptors intended for TSDS state reporting.

TYPES OF OUTGOING VALUES



- **TSDS Descriptor value:**
  - Local value will remain in the IODS for local use.
  - The mapped outgoing value will move to TSDS during the promotion process. TEDS-compliant descriptor values for this data element will appear in the dropdown that can be used to map to include for TSDS state reporting.
  - Local value will no longer appear in the Level 1.5 filters.
- **Excluded from TSDS:**
  - Local value will remain in the IODS for local use.
  - Will be excluded from TSDS state reporting
  - Local value will continue to appear in the Excluded from TSDS filters results.
- **Unmapped (Excl. from TSDS):**
  - Local value will remain in the IODS for local use.
  - Will be excluded from TSDS state reporting
  - Local value will continue to appear in the Level 1.5 filters.



TRAINING ACTIVITIES

Demo, Practice, Troubleshooting, Knowledge Checks

DEMONSTRATION

1. Log into a TSDS Portal.
2. Navigate to DMC.
3. Hover over Admin tab and click Map Descriptors.
4. Select the local descriptor value(s) and map it with the appropriate Outgoing Value: TEDS descriptors, Excluded from TSDS, and Unmapped (Excl. from TSDS).
5. Verify the mapped TEDS Descriptor values that are intended for TSDS state reporting no longer appear in the Level 1.5 filters.

Note: The Reference Guide is a resource that provides step-by-step instructions for Mapping Descriptors.

Link to RG

PRACTICE EXERCISE

Task 1: Review the Ed-Fi and/or local descriptor values appearing in the Level 1.5 filters.

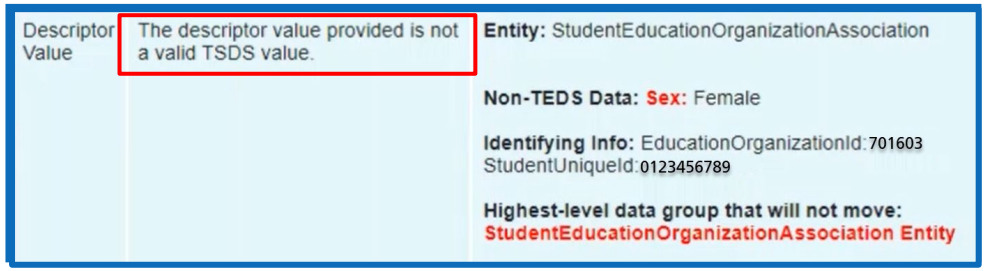
Task 2: Map the Ed-Fi and/or local values that are intended for TSDS state reporting to a valid TEDS descriptor value.

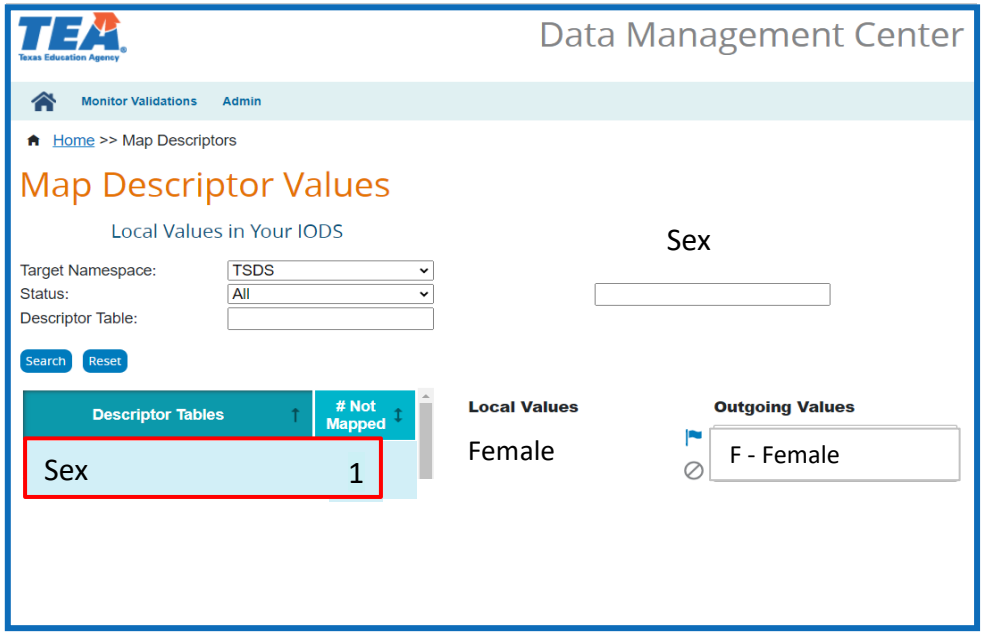
Task 3: Verify the mapped TEDS Descriptor value no longer appears in the Level 1.5 filters.



TROUBLESHOOTING

Scenario 1: LEA only intends to publish TEDS descriptor values into IODS for TSDS state reporting. Why is this Descriptor Table with the Local Value appearing in the Map Descriptor Values user interface?





Resolution Steps:

- Any descriptor value that does not conform to TEDS standards will appear in the Level 1.5 filters.
- In TEDS, the TSDS Descriptor Value for “Sex” is “F” and not “Female”.
- LEA needs to work with their vendor to ensure the TEA namespace value TEDS Descriptor Value “F” is publishing to the IODS.
- Once the correct TEDS Descriptor Value “Sex” is published to the IODS, this should clear the Level 1.5 filter.

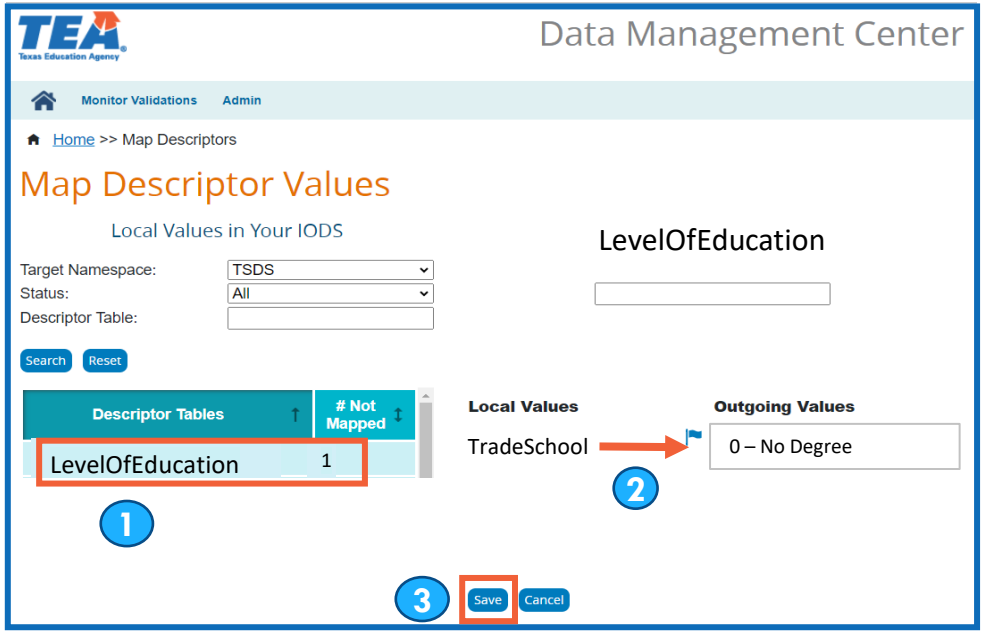
TROUBLESHOOTING

Scenario 2: LEA wants to keep the Local Descriptor Value in the LEA's IODS for local use and promote the TEDS Descriptor Value to TSDS, how can this mapping be done in the DMC application?

Local Descriptor Value LevelOfEducation (xxx):

Trade School

Table Identification	Name
C015	LevelOfEducation
Descriptor	**Short Description**
0	No Degree
1	Bachelor's
2	Master's
3	Doctorate



Resolution Steps:

- To map the local descriptor "TradeSchool" to the appropriate TEDS-compliant descriptor code value in the DMC for TSDS state reporting:
  1. Click the Descriptor Table **LevelOfEducation**
  2. Select the appropriate TEDS-compliant value from the Outgoing Values drop-off menu "e.g., 0-No Degree"
  3. Click the **Save** button to save the mapping.
- Verify the non-TEDS descriptor value "TradeSchool" no longer appears in the Level 1.5 filters.

KNOWLEDGE CHECK

1. **Which TEAL role will be needed to map descriptors in the DMC?**

   A. DMC LEA Admin Config
   B. DMC LEA Data Monitor
   C. DMC LEA Technical
   D. DMC LEA L2 Validations

NOTE: An LEA should limit the access to the ‘DMC Map Descriptors’ privilege for this role to only those responsible for mapping descriptors in the DMC application.

KNOWLEDGE CHECK

2. Data elements using Ed-Fi/Local descriptor values will require DMC or API mapping to make the data available for TSDS state reporting.

A. True
B. False

NOTE: The Ed-Fi/local descriptor value will remain in the IODS for local use.

KNOWLEDGE CHECK

3. Ed-Fi/Local descriptors that are mapped in the DMC as 'Excluded from TSDS' or 'Unmapped (Excl. from TSDS)' will continue to appear in the Level 1.5 Descriptor Values filter.

A. True
B. False

NOTE: Only 'Ed-Fi/Local' descriptors that are mapped in the DMC to a 'TSDS Descriptor Value' will no longer appear in the Level 1.5 filters.

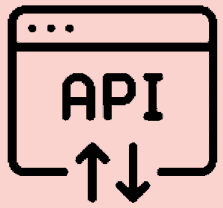


WRAP UP

Key Takeaways, Resources, and Next Steps

KEY TAKEAWAYS

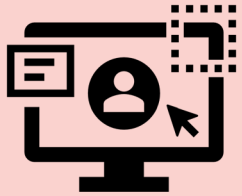
The **DMC LEA Data Monitor** role is required to map descriptors in the DMC.



The **namespace** utilized by the source system vendors may require descriptor mapping in the DMC.



Descriptor values not mapped to a **Texas Education Data Standards value** will not be promoted to TSDS.



Descriptor values can be mapped, excluded, or left as unmapped in the **DMC application.**

TRANING RESOURCES

- Key Terms and Definitions
- Reference Guide for Descriptor Mapping

NEXT STEPS

Apply for the DMC LEA DATA MONITOR role

- Utilize the training materials available for step-by-step instructions in the Reference Guide.
- Apply under the Texas Student Data System Portal Application.
- Monitor the approval process and follow up with the designated TEAL approver as needed.

View the Level 1.5 filters in the DMC

- Check to see if there are any descriptor value filter results.
- If necessary, map to TEDS descriptor values for TSDS state reporting.

WRAP UP

In this training we talked about:

- The DMC LEA Data Monitor role needed to map descriptors in the DMC application.
- The definition of descriptor mapping.
- How to map descriptors in the DMC application.

QUESTIONS

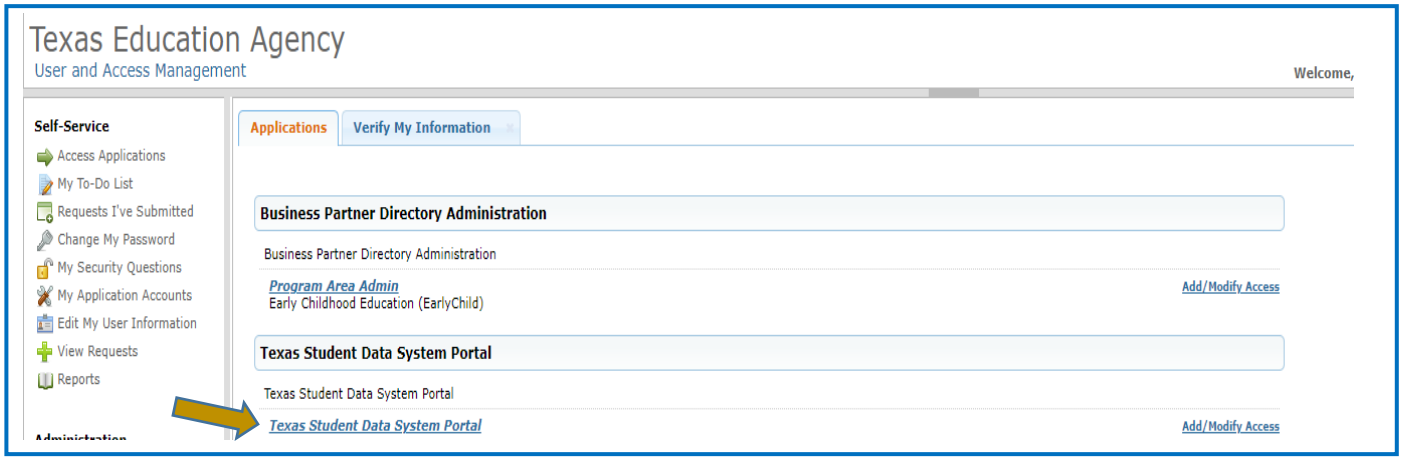


DMC Descriptor Mapping Reference Guide

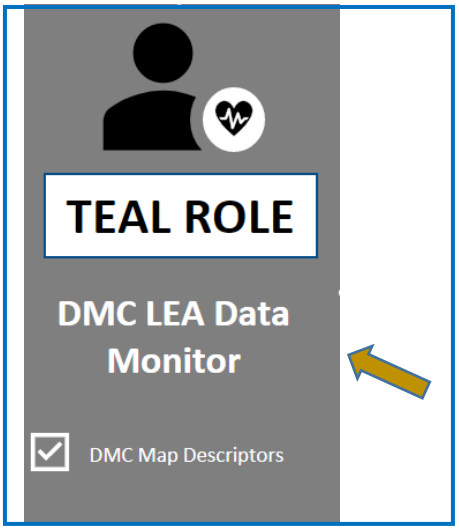
Target Audience: LEA and ESC Technical Staff responsible for mapping descriptor values in the Data Management Center (DMC) for TSDS state reporting.

Purpose: This guide provides a list of steps for LEA and ESC personnel responsible for mapping Ed-Fi and/or local descriptors loaded into the LEA's Individual Operational Data Store (IODS) to TEA descriptors required for TSDS state reporting using the DMC application.

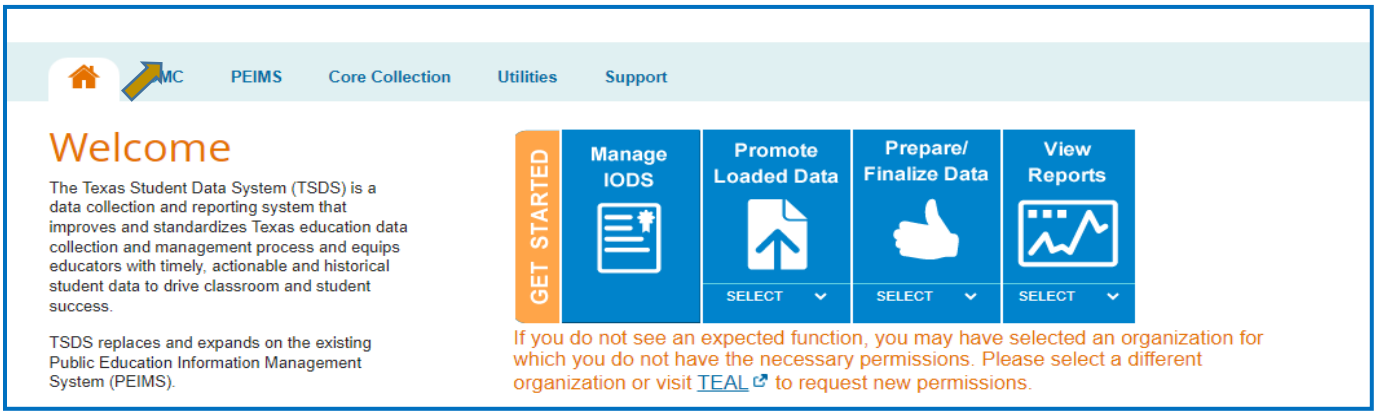
1. Log in to TEAL and navigate to the **Texas Student Data System Portal**.



2. Verify that you have requested the TEAL role **DMC LEA Data Monitor** and selected the DMC Map Descriptors privilege.



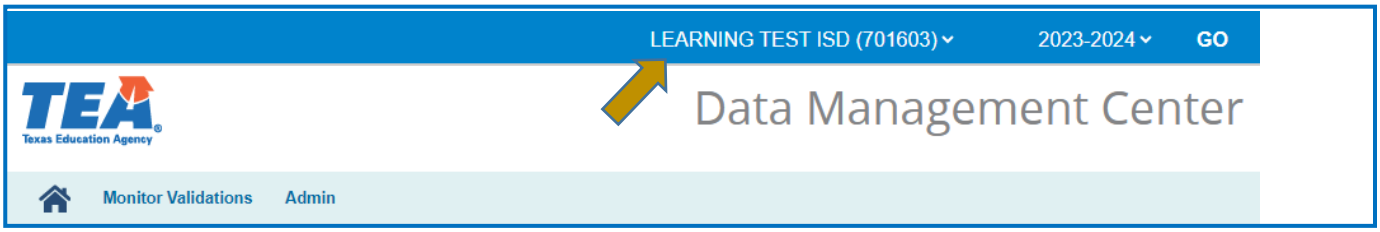
3. Click on **DMC** in the ribbon at the top of the screen.



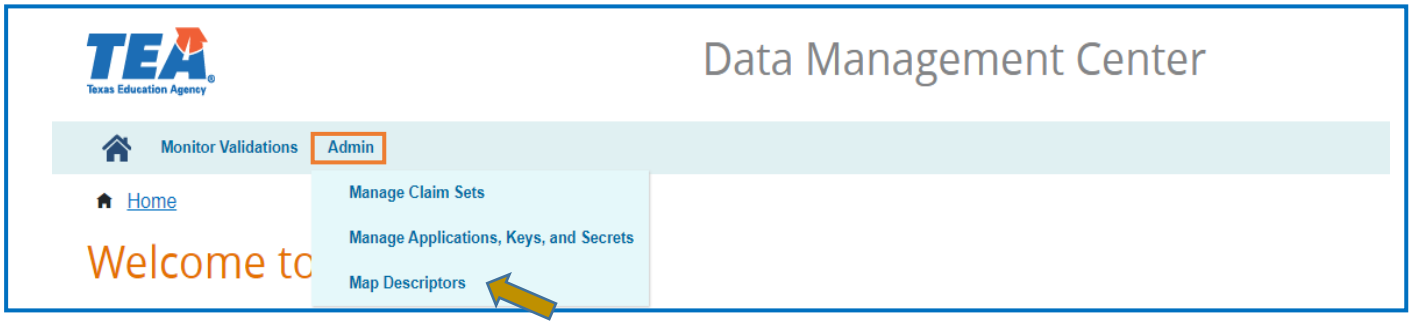
4. Click on the Manage IODS easy button to access the DMC.



5. Upon accessing the DMC application, verify the organization and school year in the ribbon at the top right of the screen.

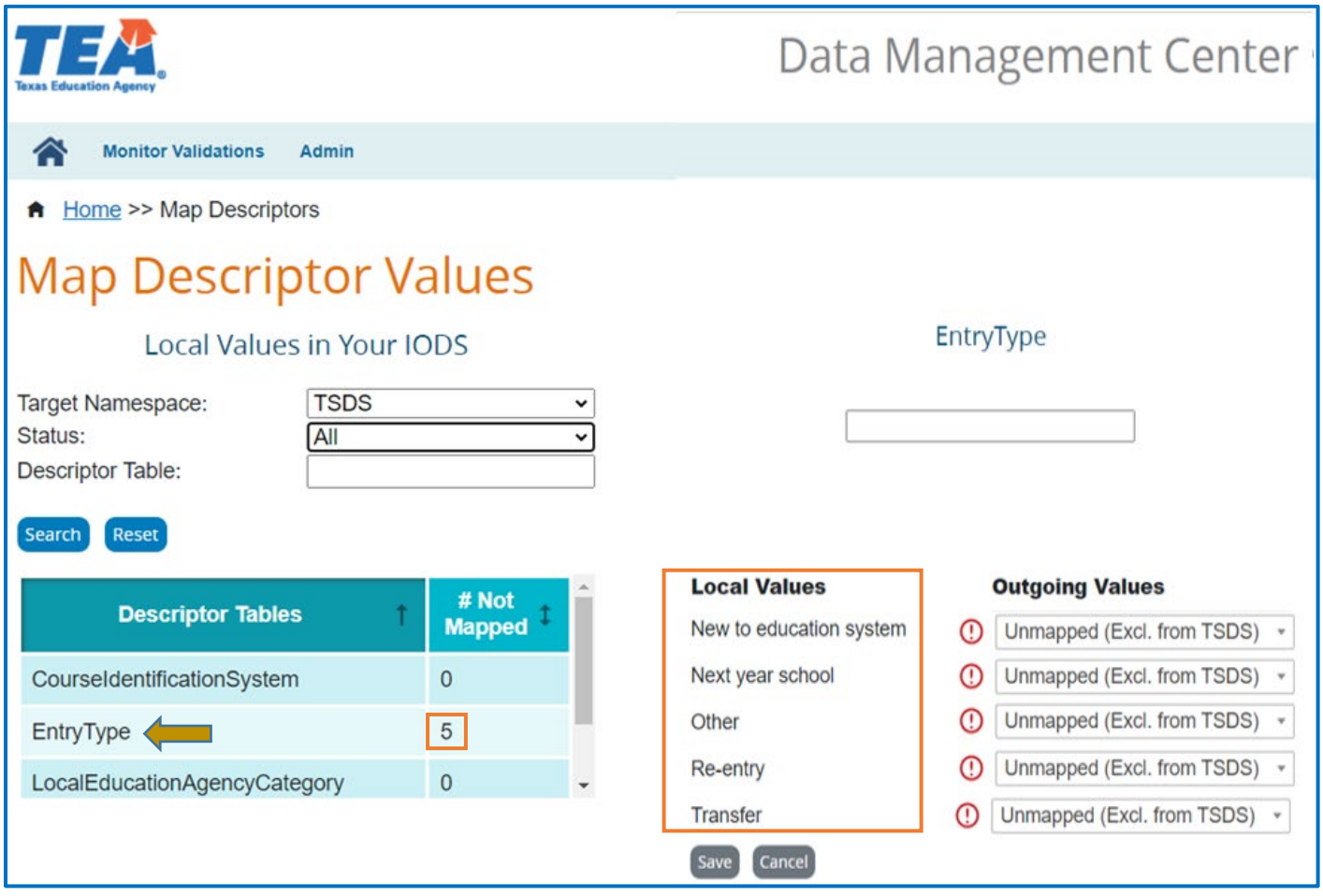


6. Hover over the **Admin** tab, click **Map Descriptors**.



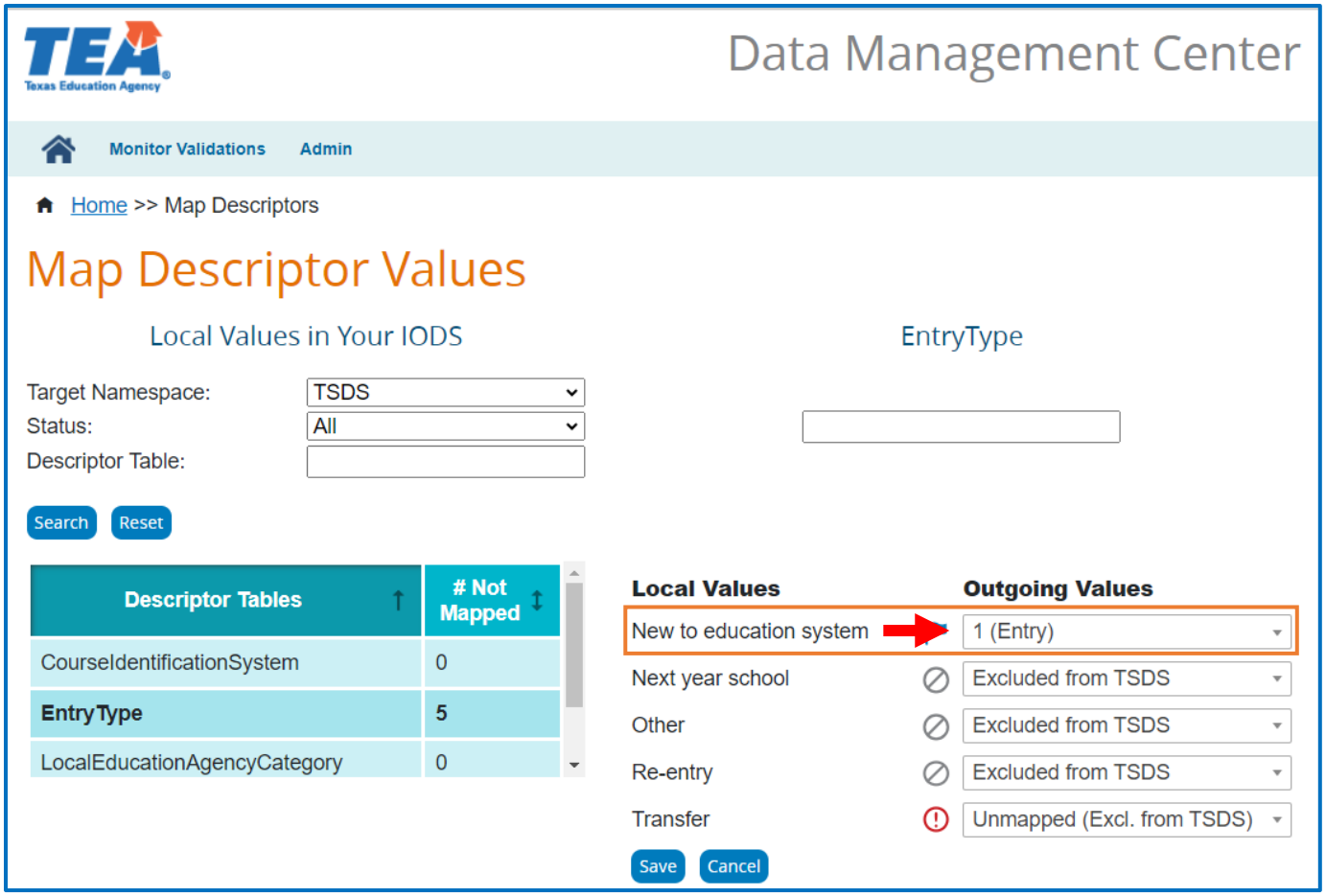
7. Click on each **Descriptor Table** to see the Ed-Fi/Local Value(s) that are not TEDS compliant.

   In this example, “EntryType” has five Ed-Fi/Local Values: "New to education system," "Next year school," "Other," "Re-entry," and "Transfer," which are not valid TEDS descriptor values.



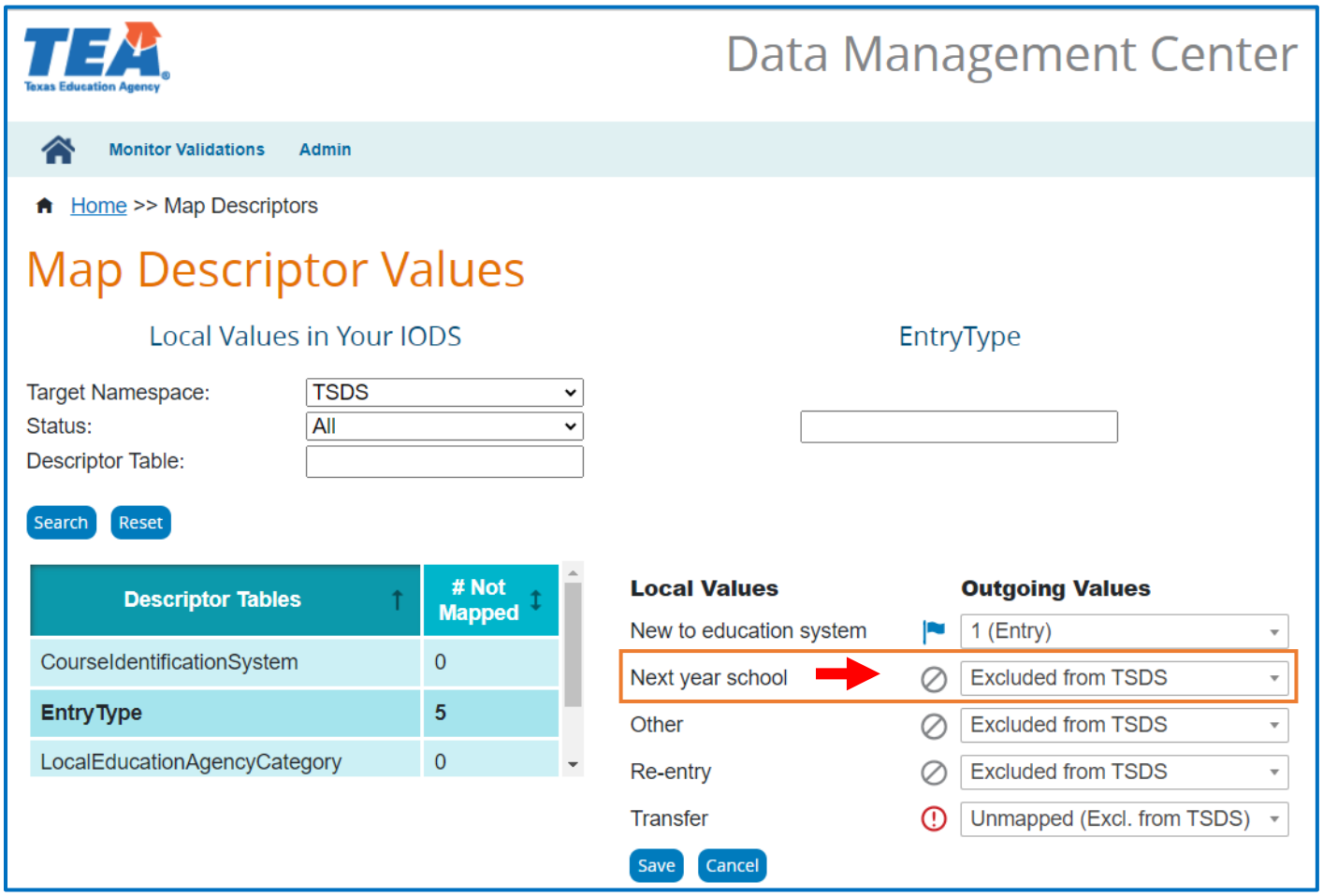
8. To map an Ed-Fi/Local Value to a TEDS-compliant value for submission to TSDS, choose the appropriate TEDS descriptor value from the Outgoing Value dropdown menu. Each Descriptor Table will provide its corresponding TEDS descriptor values for selection within the Outgoing Values dropdown menu.

   For example, "New to education system" should be mapped to "1 (Entry)" in the Outgoing Values dropdown menu for TSDS for state reporting. "New to education system" will remain in the LEA's IODS, while the TEDS descriptor value "1 (Entry)" will be promoted to TSDS for state reporting.



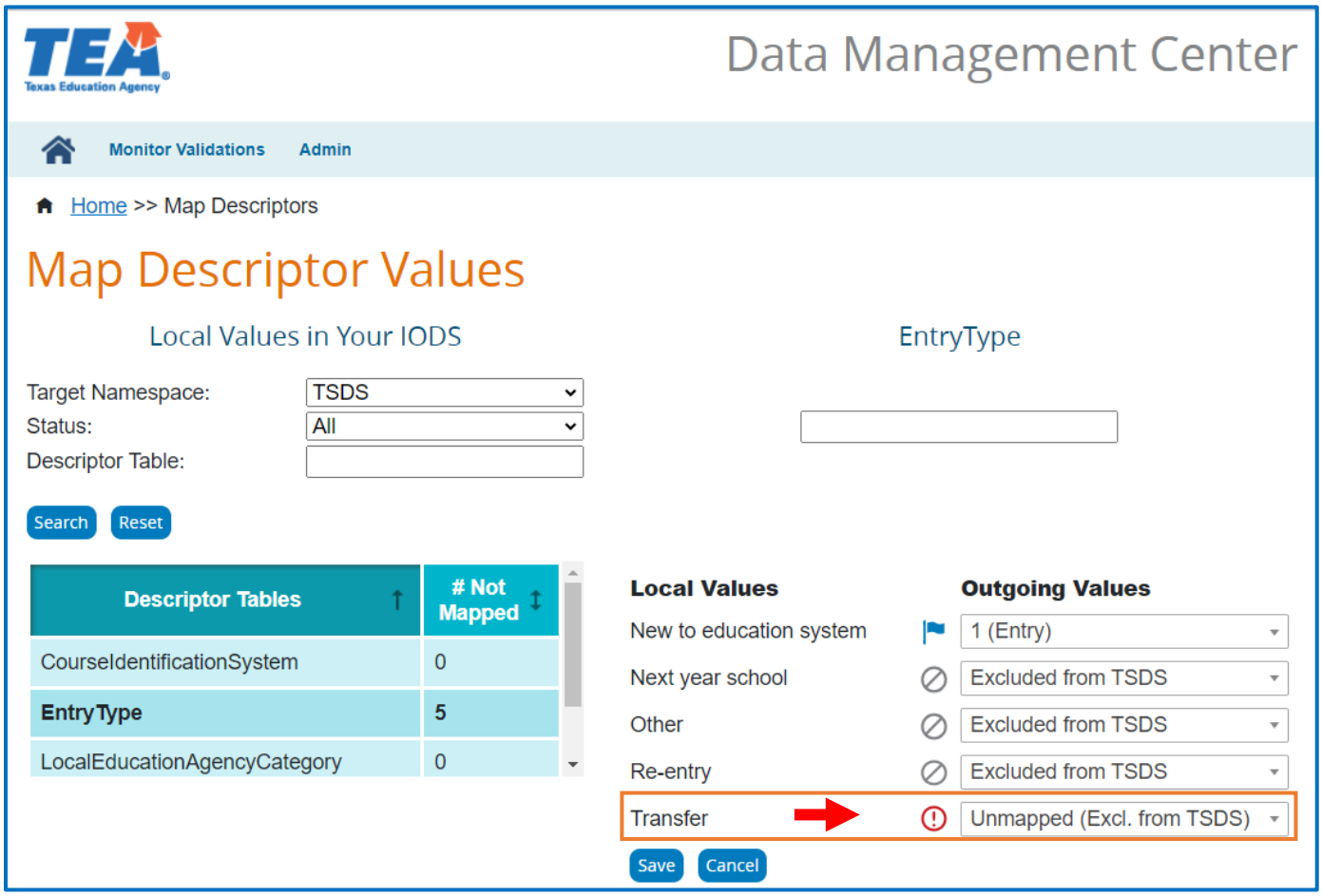
9. If "Excluded from TSDS" is chosen as the Outgoing Value, the corresponding Ed-Fi/Local Value will remain in the LEA's IODS for local use. It will not be promoted to TSDS and will continue to appear in the level 1.5 filters.

   For example, if "Next year school" is mapped to "Excluded from TSDS," it will remain in the LEA's IODS for local use and continue to appear in the level 1.5 filters. By mapping this value to "Excluded from TSDS," it shows you actively have chosen to map "Next year school" to be excluded from TSDS reporting. This step will decrease the number of Ed-Fi/Local Values that are remaining in the "# Not Mapped" column. It is considered best practice to map to "Exclude from TSDS" for Ed-Fi/Local Value that don't need to be reported to TSDS.

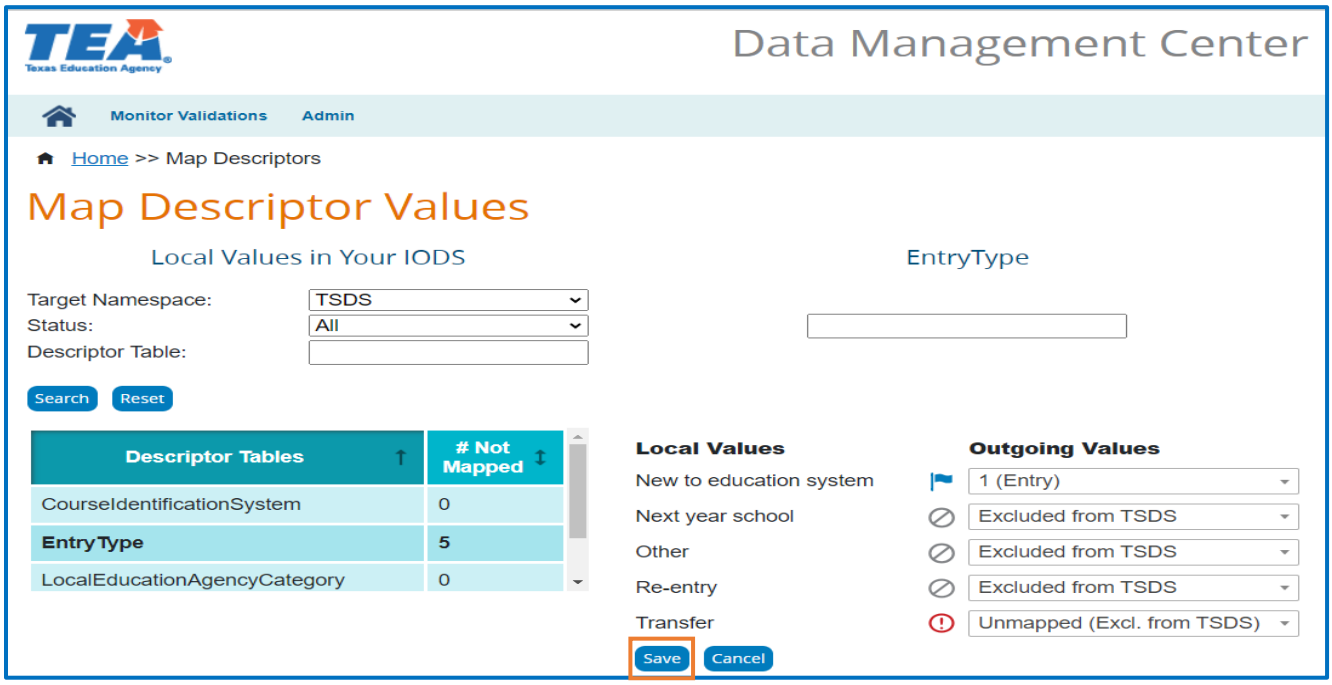


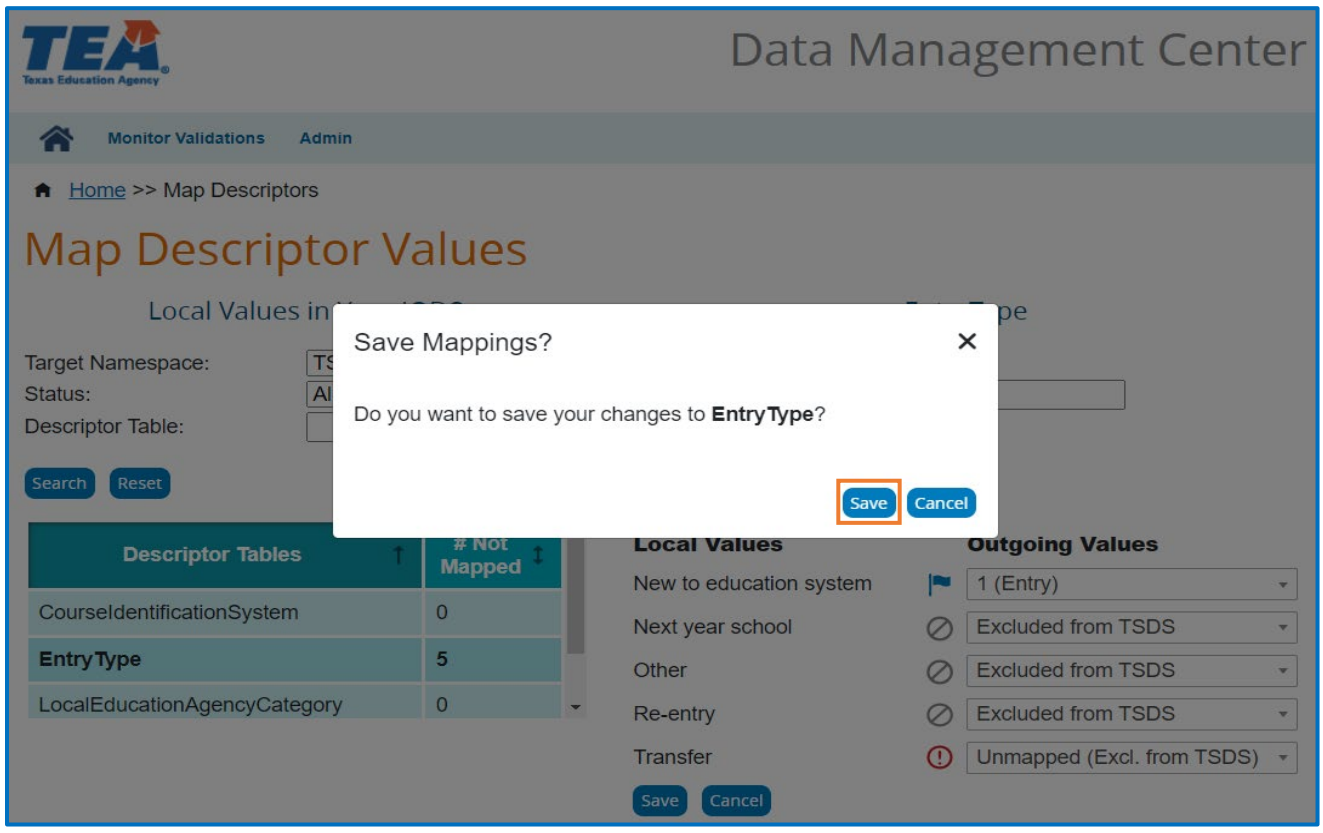
10. If the "Outgoing Value" is left as the default “Unmapped (Excl. from TSDS),” the corresponding Ed-Fi/Local Value will remain unmapped and retained in the LEA’s IODS for local use. It will not be promoted to TSDS and will continue to appear in the level 1.5 filters.

    For example, if the Ed-Fi/Local Value “Transfer” is left as the default “Unmapped (Excl. from TSDS),” it will remain in the LEA’s IODS for local use and continue to appear in the level 1.5 filters. This Ed-Fi/Local Value will remain in the “Not Mapped” column since it is left at the default setting.



11. Once you have completed mapping the Local Values to the Outgoing Values, click **Save** to keep your mapping settings for this Descriptor Table in the DMC.





12. After mapping one Ed-Fi/Local descriptor to the TEDS descriptor and three to “Excluded from TSDS,” you will see the count decrease under the “# Not Mapped” column. Only the descriptor labeled “Unmapped (Excl. from TSDS)” will be left in this column.

