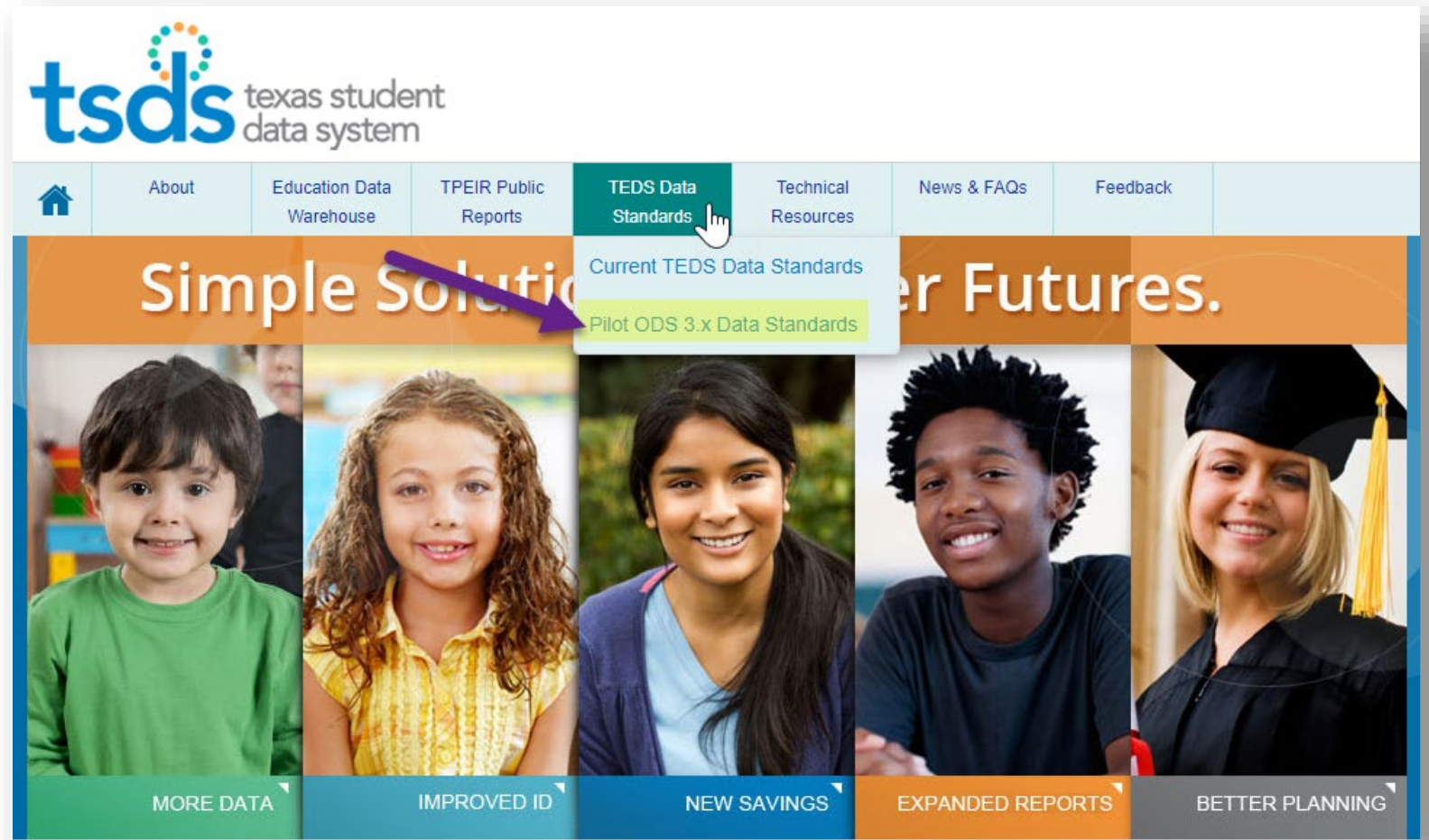**TSDS UPGRADE PROJECT - ESC**

DATA STANDARDS

TEXAS EDUCATION DATA STANDARDS

Texas Student Data System

NEW RESOURCES

Operational Data Store (ODS) Upgrade Texas Education Data Standards

For additional information about the ODS Upgrade TEDS please visit the TEDS data standards. For the current XML-based standards, please visit TWEDS.

The links below provide access to TEDS for the ODS Upgrade data standards.

ODS Upgrade Guidance	Updated
Data Submission Requirements	
Technical Resources	03/01/2023

ODS Upgrade Parallel Year	Released
2023-2024 ODS Upgrade Final Data Standards	
(Version 2024.1.0 based on Ed-Fi 4.0 standards)	
Domains	03/01/2023
All Data Element Definitions	03/01/2023
Begin and End Date Data Element Definitions	03/01/2023
Descriptor Tables	03/01/2023
Data Validation Rules	03/01/2023
Change Log - Cumulative	03/01/2023
Change Log - Descriptor Tables	03/01/2023

ODS Upgrade Data Standards

DATA SUBMISSION REQUIREMENTS

Data Submission Requirements

Data Submission Requirements (by domain)	
Education Organization	
School Calendar	
Staff	
Student Identification and Demographics	
Teaching and Learning	
Finance	
Enrollment	
Student Academic Record	
Alternative and Supplemental Services	
Student Attendance	
Discipline	
Restraint	
Student Cohort	03/06/2023
Assessment	03/06/2023
Student Special Education Program Eligibility Association	
Student Application	
Prior Year Leaver	

Cohort Entity

Entity	Entity Ref	Data Element	Collection/Submission	Length	Data Type	Descriptor Table	Element ID
Cohort							
	🔗	EducationOrganization	PK	9			
		CohortIdentifier	PK	20	String		E1173
		CohortDescription	PK	1024	String		E1174
		CohortType					NP

Legend:
ALL – Data element is used by all collections   **CRF** – Class Roster Fall   **CF** – Child Find
PF – PEIMS Fall   **CRW** – Class Roster Winter   **RF** – RF-Tracker
PM – PEIMS Mid-year   **KG** – ECDS KG   **SE** –SELA
PS – PEIMS Summer   **PK** – ECDS PK   **14** – SPPI-14
PE – PEIMS Extended Year
NP – Data element is **not promoted** to TSDS

Entity Description
The Cohort Entity represents any type of list of designated students for tracking, analysis, or intervention.

General Reporting Requirements
The Cohort Entity reports cohorts that a teacher and student are associated with.

Special Reporting Requirements
Currently, there are no special reporting requirements.

Data Element Reporting Requirements
EducationOrganization Reference
The EducationOrganization Reference represents the identifier assigned to a school.

CohortIdentifier (E1173) indicates the name or ID for the cohort.

CohortDescription (E1174) is the description of the cohort and its purpose.

TECHNICAL RESOURCES: COURSE

tsds

Table of Contents

2023-2024 Texas Education Data Standards – Technical Resources
Final Version 2024.1.0
Updated March 1, 2023

Course

The table listed below was formerly known as the SERVICE-ID (C022) table. In the upgraded data standards, the Texas Education Agency (TEA) will populate the Course Entity with the TEA approved Course information located below. All locally developed courses must be assigned an eight-digit course code. This number may be a combination of letters and numbers, the last three digits of which are assigned locally. The Local Education Agency (LEA) vendor will need to populate the Course Entity with any LocalCourseCodes.

The Course Code, Course Title, and Course Abbreviations of state-approved courses used on the Academic Achievement Record are listed in the table below. Use of these prescribed numbers, titles, and abbreviations is required for participation in the Texas Records Exchange (TREx) system.

Table Identification	Name	Date Issued		Date Updated	
C022	Course	03/01/2023			
Course Code	**Course Title**	**Eligible for State HS Credit**	**Course Abbreviation**	**Units**	**CTE Course**
Grades PK - 6, Elementary					
01010000	Pre-Kindergarten				
01020000	Kindergarten				
01020100	Transition (Pre-First Grade, Developmental First)				
02000000	Elementary, Grades 1-6				
02010000	Grade 1				
02020000	Grade 2				
02030000	Grade 3				
02040000	Grade 4				
02050000	Grade 5				
02060000	Grade 6				
01110000	Languages Other Than English, Kindergarten - Arabic				
02111000	Languages Other Than English, Grade 1 - Arabic				

TEA

TECHNICAL RESOURCES: CTE INDICATOR

tsds

2023-2024 Texas Education Data Standards – Technical Resources
Final Version 2024.1.0
Updated March 1, 2023

PEIMS Career and Technical Education Indicator

Beginning with the 2020-2021 school year, the Career and Technical Education Indicator is a calculated value based on the student's course completion data for all years in which the student could have taken a CTE course. The Career and Technical Education Indicator will be calculated by TEA for all students in grades 06-12.

The Career and Technical Education Indicator is calculated, once the PEIMS Summer Submission is in the Accepted status for all LEAs and once the PEIMS Extended-Year Submission is in the Accepted status for all LEAs. Reports that display the calculated value will be available approximately two weeks after each submission closes.

The possible calculated Career and Technical Education Indicator values are described below:

Table Identification	Name	Date Issued	Date Updated
C142	Career And Technical Education Indicator	03/03/1993	09/01/2021
Indicator	**Description**		
4	**Not CTE:** A student who never completed any high-school CTE courses.		
5	**CTE Program Participant:** A student who completes either one high school CTE course for any number of credits or more than one high school CTE course for less than two credits (the student does not have to pass or receive credit).		
E	**CTE Program Explorer:** A student who completes two or more high school CTE courses for a total of two or more credits and not a Participant, Concentrator or Completer (the student does not have to pass or receive credit) or		

TEA

PROJECT UPDATES

PROJECT TIMELINE

- **September 2021 – August 2023**
  - **Optional**: TSDS vendors can participate in pilot program to develop and test their product solutions.
  - **Optional:** LEAs can partner with their vendors to conduct end-to-end testing in preparation to parallel submission.

- **August 2023 – August 2024**
  - **Required**: All TSDS vendors test their product solutions.
  - **Optional:** LEAs will submit both API transactions and XML submissions and compare results to ensure vendor readiness.

- **August 2024 – August 2025**
  - **Required:** All LEAs will submit their TSDS official data through API transactions.
  - XML submissions no longer accepted for TSDS.

Pilot
EXTENDED

Parallel

Go Live
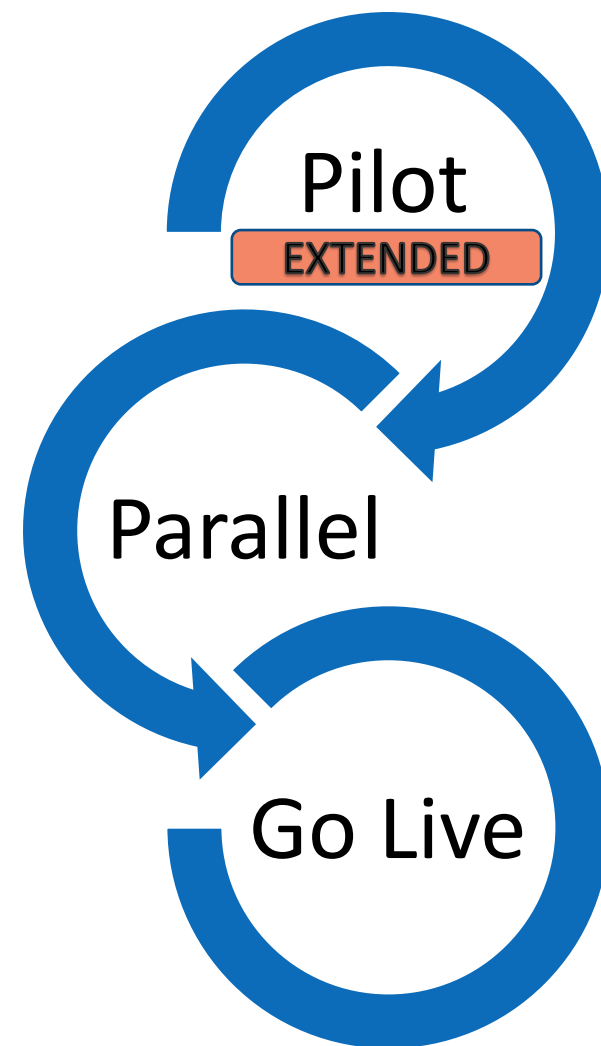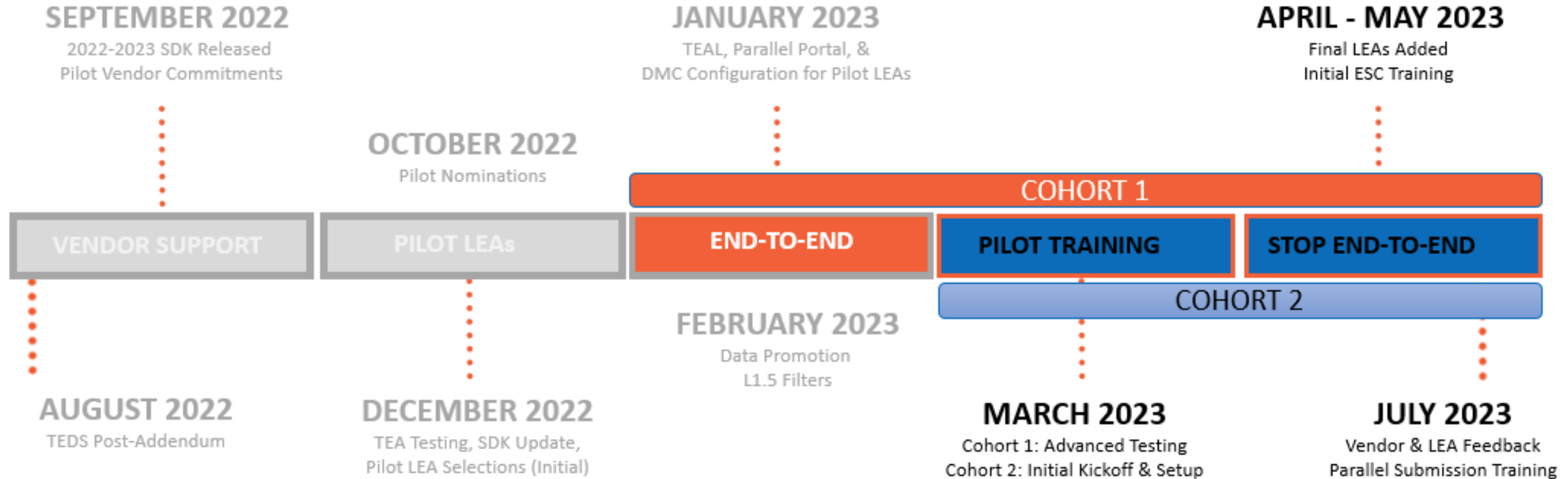
PILOT PROGRAM

PILOT PROGRAM FUNCTIONALITY

RECENTLY RELEASED

- **TEA-defined claim sets:**
  - HR Vendor
  - Finance Vendor
  - HR/Finance Vendor
  - SIS/HR/Finance Vendor
- **Data Management Center (DMC)**
  - Level 1.5 Filter Details

IN PROGRESS

- **TEA-defined claim sets:**
  - Assessment Vendor
  - Read Only All Resources
- **Data Management Center (DMC)**
  - Manage Claim Set Functionality
  - Level 2 Validations
- **Software Development Kit (SDK)**
  - Update Coming End of March

PILOT PROGRAM ACCOMPLISHMENTS

PROGRESS REPORT

- **Data Published:**
  - 4 vendors have published for 7 LEAs
  - 620,000 resources published to 30 entities
- **Data Promoted**
  - 6 LEAs have promoted to PEIMS or CORE
  - 90,200 records for PEIMS Fall
  - 69,900 records for Class Roster Fall
- **Support Tickets**
  - 146 support tickets submitted

TEA

PILOT PROGRAM VENDORS

COHORT 1 VENDORS

Aeries
SIS

Frontline
SIS, HR/Finance

Infinite Campus
SIS

PowerSchool
SIS (2), HR/Finance (2)

Skyward
SIS (2), HR/Finance (2)

COHORT 2 VENDORS

Ascender

Harris School Solutions

Focus School Software
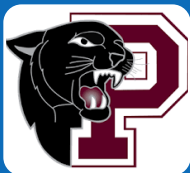
Tyler Technologies

COHORT 1: PILOT LEAS

Edna ISD

Lake Worth ISD

Lorena ISD

Magnolia ISD

Princeton ISD

Royse City ISD

San Angelo ISD

San Benito CISD

Sharyland ISD

ACHIEVING PILOT PROGRAM GOALS

GOAL	ACTUAL
☑ 25+ LEAs by the end of July	32 LEAs accepted
❓ At least one LEA from each ESC	17 ESC regions with a pilot LEA
☑ At least one Charter School	3 Charter Schools accepted
☑ LEA with multiple vendors	9 LEAs with multiple vendors
❓ LEA with in-house solution	*Several LEAs in consideration
❓ Early testing of ECDS KG	*LEAs with CLI in consideration
☑ Wide range of data diversity	LEA and vendor hosted systems

* TEA may add LEA(s) to fulfill this goal later in Pilot

FREQUENTLY ASKED QUESTIONS

Will additional LEAs be added to the Pilot Program?

TEA is not expecting to accept any additional LEAs to the 2022-2023 Pilot Program after April 2023. All accepted LEAs were informed on or before March 20, 2023. LEAs were accepted based upon discussion and coordination with their pilot vendor(s) and the goals of the pilot program.

Any LEA that has previously expressed interest through the LEA Nomination Form and was not included in the 2022-2023 Pilot Program will be accepted for the 2023-2024 Parallel Submission.

Will LEAs currently participating in the Pilot Program be automatically included for the 2023-2024 Parallel Submission?

Yes. All LEAs currently participating in the Pilot Program will be included in the list of accepted LEAs for the 2023-2024 Parallel Submission. They will be informed of their acceptance prior to the start of school year.

FREQUENTLY ASKED QUESTIONS

When will ESCs be able to start testing their own PEIMS data submissions?

An ESC may start testing their PEIMS Fall data submission in the 2022-2023 Pilot Program based upon their vendor's readiness and capacity. Please coordinate with your vendor and contact TSDSDeployment@tea.texas.gov if interested.

All ESCs will be expected to participate in the 2023-2024 Parallel Submission and test their data submissions for PEIMS Fall and PEIMS Mid-year.

FREQUENTLY ASKED QUESTIONS

How and when will LEAs be accepted for the 2023-2024 Parallel Submission?

TEA will be sending additional correspondence in May 2023 to all LEAs to solicit participation for the 2023-2024 Parallel Submission. Any LEA that has previously submitted their interest through the LEA Nomination Form will not need to apply again. TEA will coordinate with their vendor(s) and ESC prior to LEA acceptance. LEAs will be informed of their acceptance prior to the start of the 2023-2024 school year.

More information will be shared in the upcoming FCN webinars as it becomes available.

VALIDATIONS

LEVELS OF VALIDATIONS

LEVEL 1

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.

LEVEL 1.5

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.

LEVEL 2

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.

LEVEL 3

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.
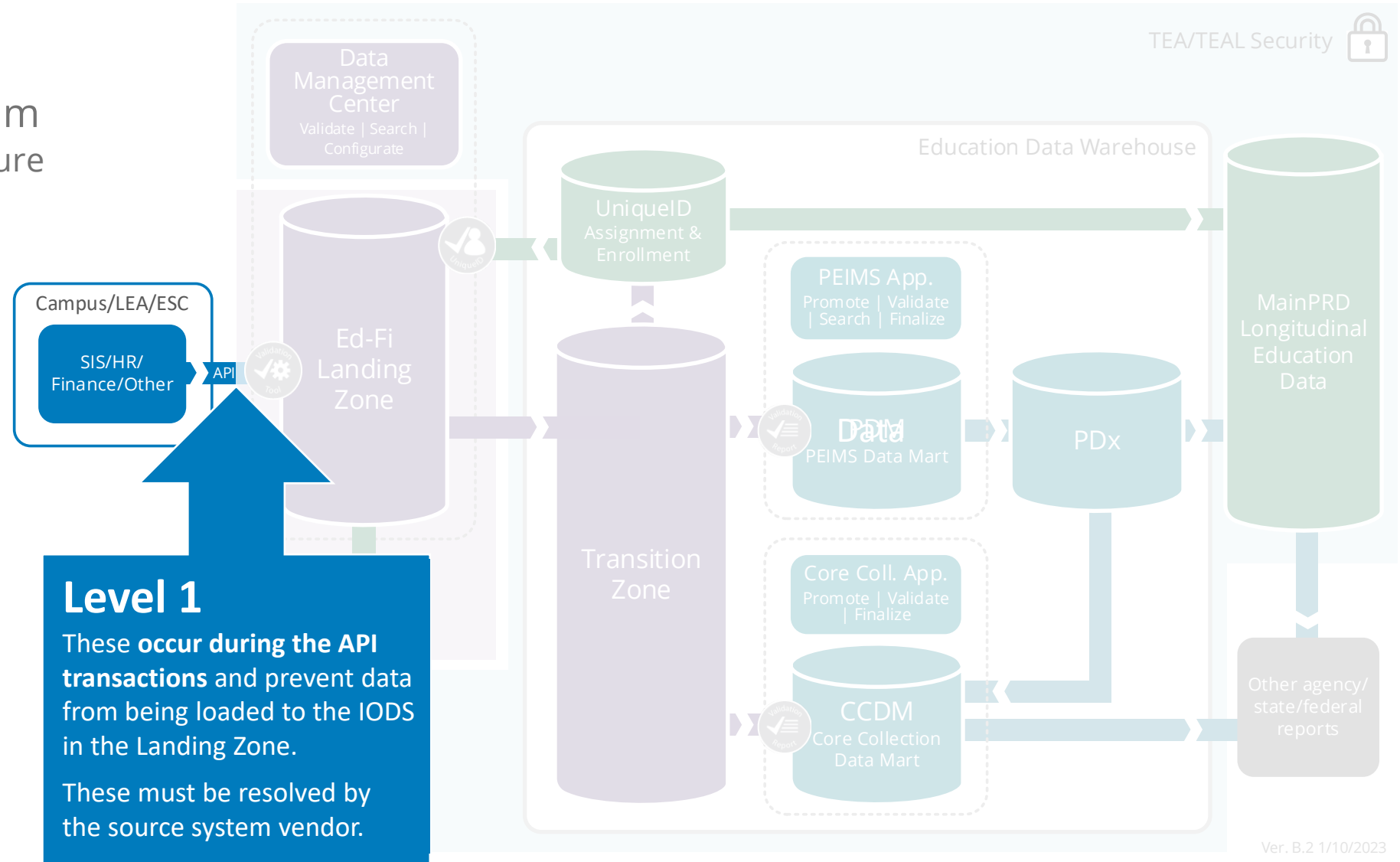
HIGH-LEVEL ARCHITECTURE

Components Diagram
TSDS Upgrade Architecture

Campus/LEA/ESC

SIS/HR/Finance/Other

API

Data Management Center
Validate | Search | Configure

Ed-Fi Landing Zone

UniqueID Assignment & Enrollment

TEA/TEAL Security

Education Data Warehouse

PEIMS App.
Promote | Validate | Search | Finalize

PEIMS Data Mart

PDx

MainPRD Longitudinal Education Data

Transition Zone

Core Coll. App.
Promote | Validate | Finalize

CCDM
Core Collection Data Mart

Other agency/state/federal reports

Level 1

These **occur during the API transactions** and prevent data from being loaded to the IODS in the Landing Zone.

These must be resolved by the source system vendor.

- ● New ODS 3.x / TPDM Systems
- ● Campus/LEA/ESC Systems
- ● TSDS Systems
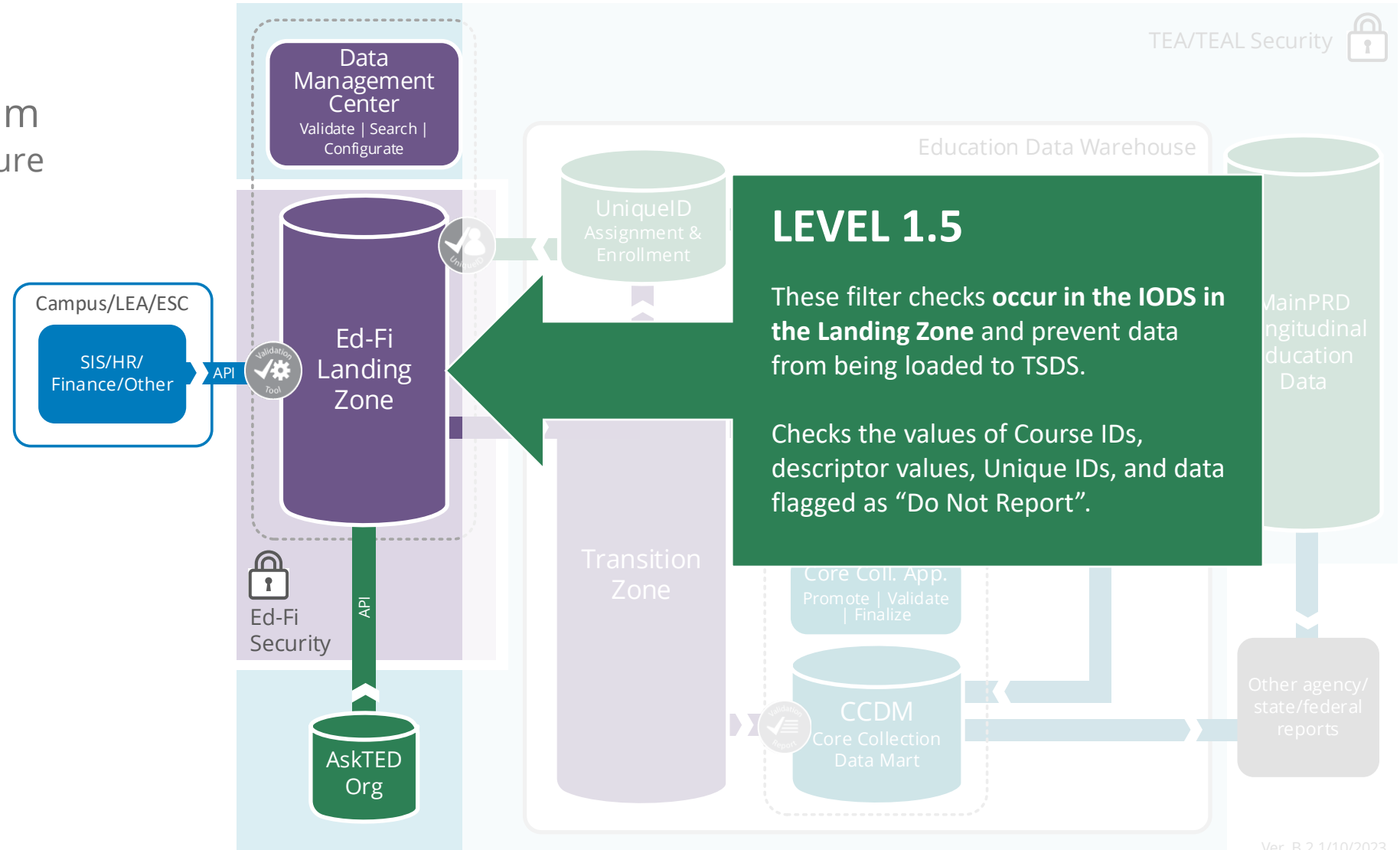- ● Other TEA Systems
- ● Other systems

Client-side validations

UniqueID validations

Server-side validations

Ver. B.2 1/10/2023

HIGH-LEVEL ARCHITECTURE
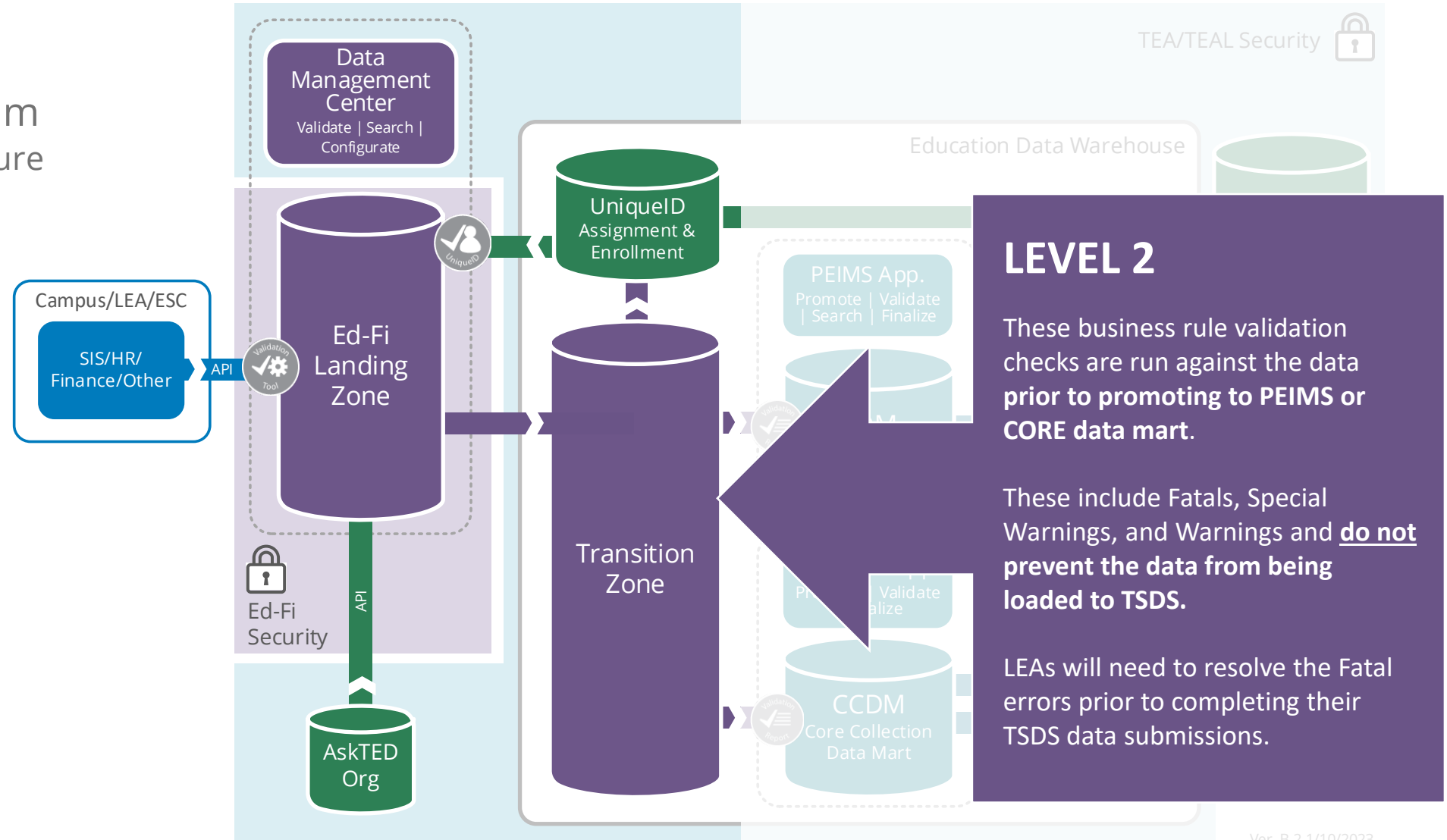

Components Diagram
TSDS Upgrade Architecture

LEVEL 1.5

These filter checks **occur in the IODS in the Landing Zone** and prevent data from being loaded to TSDS.

Checks the values of Course IDs, descriptor values, Unique IDs, and data flagged as "Do Not Report".

HIGH-LEVEL ARCHITECTURE

tsds

tsds texas student data system

Components Diagram
TSDS Upgrade Architecture

TEA/TEAL Security

Data Management Center
Validate | Search | Configure

Education Data Warehouse

UniqueID
Assignment & Enrollment

Campus/LEA/ESC

SIS/HR/Finance/Other

API

Ed-Fi Landing Zone

PEIMS App.
Promote | Validate | Search | Finalize

LEVEL 2

These business rule validation checks are run against the data **prior to promoting to PEIMS or CORE data mart**.

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

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

Transition Zone

Ed-Fi Security

API

AskTED Org

Promote | Validate | Finalize

CCDM
Core Collection Data Mart

- New ODS 3.x / TPDM Systems
- Campus/LEA/ESC Systems
- TSDS Systems
- Other TEA Systems
- Other systems
- Client-side validations
- UniqueID validations
- Server-side validations

Ver. B.2 1/10/2023

HIGH-LEVEL ARCHITECTURE

tsds

tsds texts student data system

Components Diagram
TSDS Upgrade Architecture

- New ODS 3.x / TPDM Systems
- Campus/LEA/ESC Systems
- TSDS Systems
- Other TEA Systems
- Other systems
- Client-side validations
- UniqueID validations
- Server-side validations
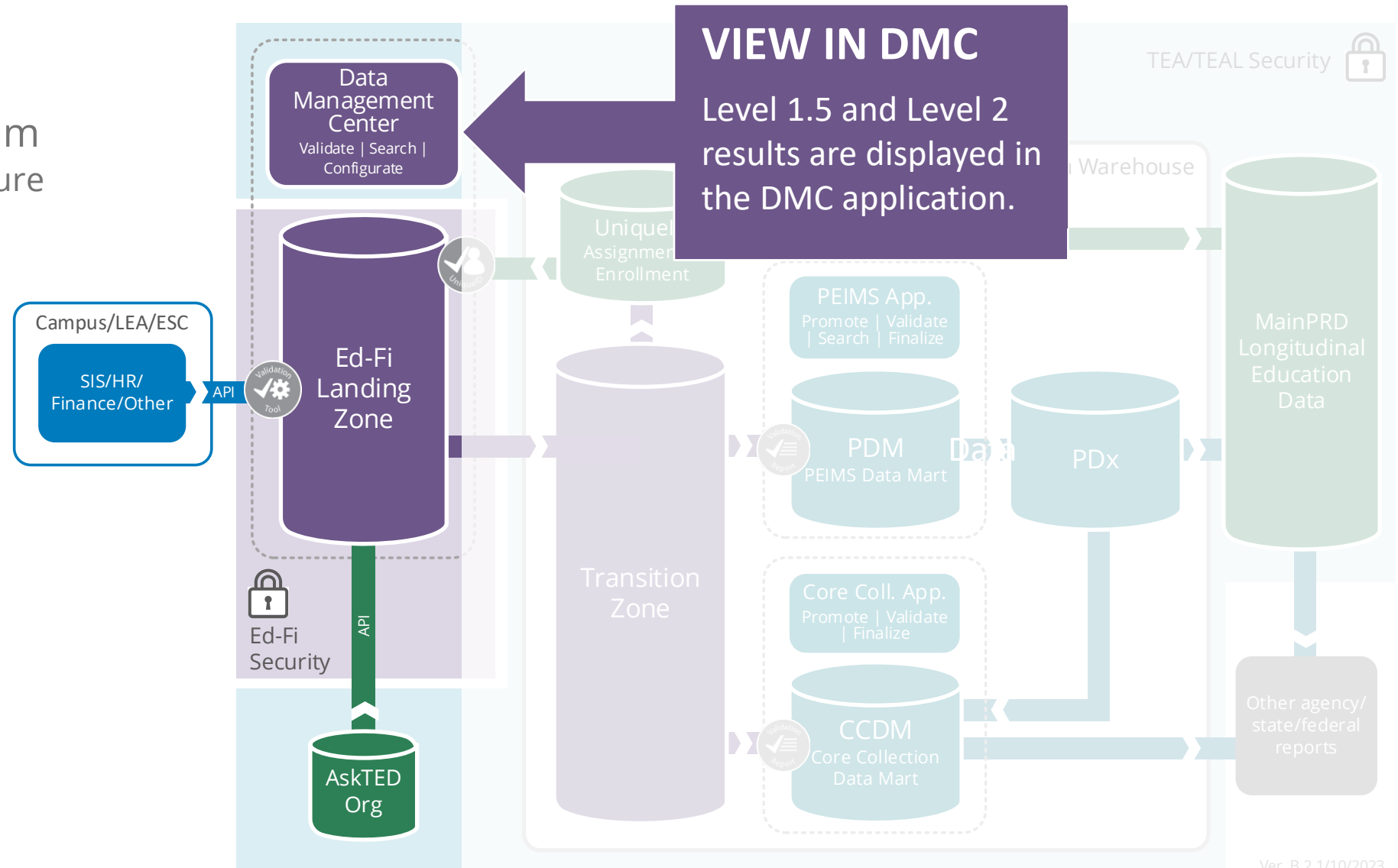
LEVEL 3

These business rule validation checks are run against the data **after promoting to the PEIMS or CORE data marts**. These will include some validations that could not be run at Level 2.

These include Fatals, Special Warnings, and Warnings.

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

TEA/TEAL Security

Education Data Warehouse

Data Management Center
Validate | Search | Configure

UniqueID Assignment & Enrollment

PEIMS App.
Promote | Validate | Search | Finalize

PDM
PEIMS Data Mart

PDx

MainPRD Longitudinal Education Data

Core Coll. App.
Promote | Validate | Finalize

CCDM
Core Collection Data Mart

Other agency/ state/federal reports

Ver. B.2 1/10/2023
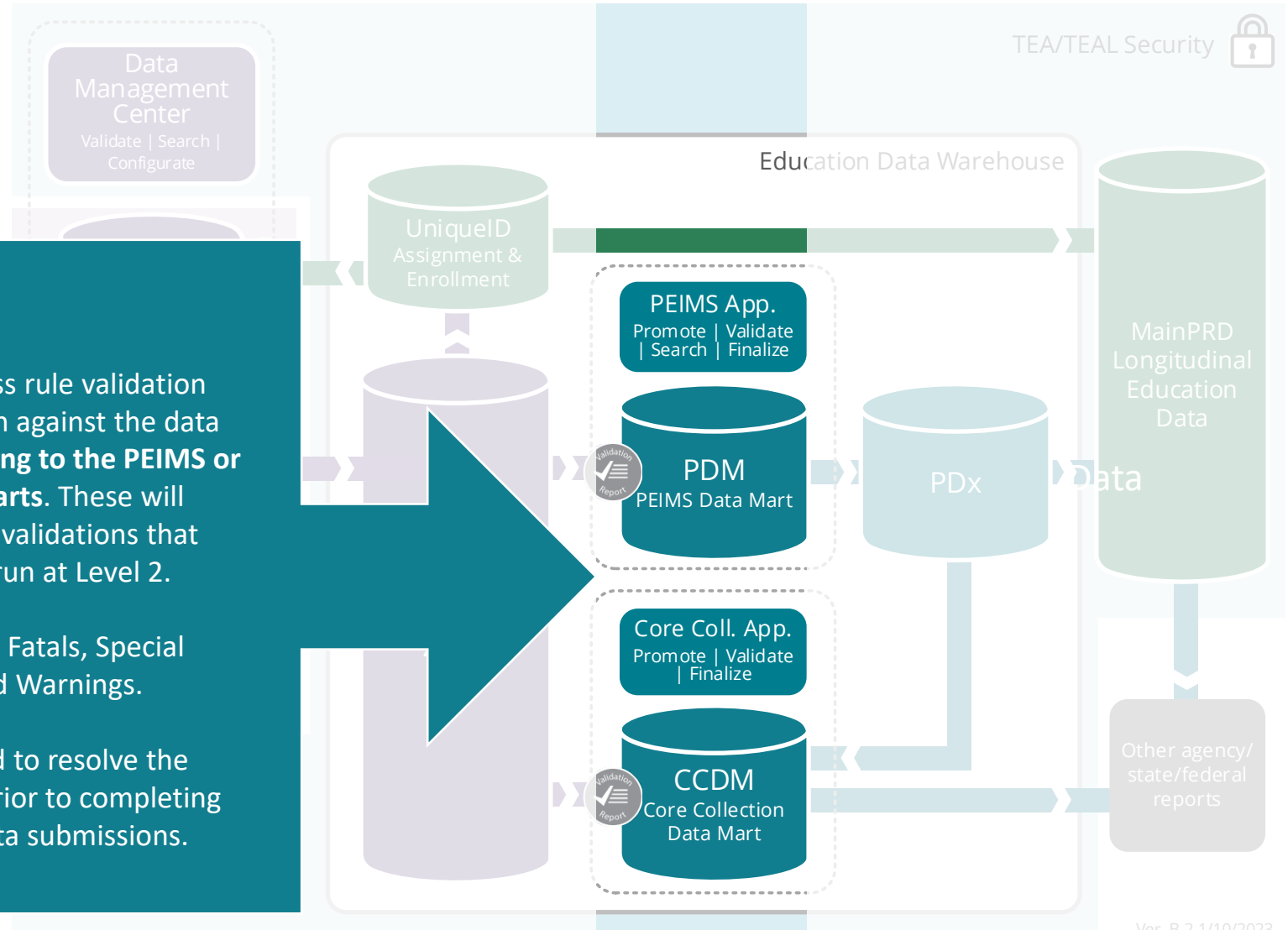
How will LEAs be informed of Level 1 validation errors?

Level 1 validations occur during the API transactions from the LEA's source system(s) to the IODS in the Landing Zone. The LEA's source system vendor(s) would be responsible for informing the LEA of any Level 1 validation errors through their products or reporting.

Any data that results in a Level 1 validation error will <u>not</u> be loaded into the IODS in the Landing Zone.

tsds

Does the LEA need to resolve Level 1.5 filter results?

It would depend on whether the data was intended and expected to be used for TSDS data submissions. Any data identified in the Level 1.5 filter results will <u>not</u> be loaded to the Transition Zone and will <u>not</u> be made available to promote to the PEIMS and CORE data marts. These results would need to be resolved to be loaded for TSDS reporting.

An LEA may have data loaded to their IODS that is intended for local use. This data may be displayed as a Level 1.5 filter result and would not need to be resolved, as it would not be reported to TEA.

How do Level 2 and Level 3 validation differ?

Level 2 validations are the business rules that are run against the data prior to promoting to the PEIMS and CORE data marts. These validations do not prevent the data from being loaded to TEA's Transition Zone and do not need to be resolved. An LEA would be able to view the Fatals, Special Warnings, and Warnings in the DMC application.

Level 3 validations include all Level 2 validations, plus any additional business rule validations required for the TSDS submissions. These validations are executed when promoting the data to the PEIMS and CORE data marts. Fatal errors would need to be resolved prior to completing any TSDS data submission.

DEMONSTRATION

tsds

Can an LEA add multiple applications configured with claim sets in the DMC application?

Yes. The LEA can add multiple applications in the DMC application and generate different key and secret credentials based upon the claim set assigned. For instance, an LEA could have one application configured for their SIS vendor, one for their HR/Finance vendor, and one for their ECDS assessment vendor.

TEA

Does the key and secret need to be generated every school year?

No. An LEA will not need to generate a new key and secret every school year. The LEA would only need to generate a key and secret when a new application is added or if they switch source system vendors.

If the Level 1.5 filter result is marked as "verified", is it stored at the user level or at the LEA-level?

Any Level 1.5 filter result marked as "verified" will be stored the same for all DMC users at the LEA. This indication allows the LEA to easily identify results that have been previously reviewed in the DMC application.

When does the LEA need to perform descriptor mapping?

The LEA would need to perform the necessary descriptor mapping for any descriptor value that is loaded into the IODS that does not match a TEDS defined code value and is intended to be used for TSDS reporting.

Example: "*High School Diploma*" is loaded to the IODS, but the LEA wants to report "No Degree" for TSDS purposes. The LEA would map "High School Diploma" to "0 (No Degree)" in the DMC application.

If the source system vendor loads the TEDS defined code values to the IODS, does the LEA need to perform descriptor mapping in the DMC application?

The LEA would not need to perform descriptor mapping in the DMC application for data loaded into the IODS with TEDS defined code values. Additionally, if the LEA and/or vendor performs cross-walks or mapping of the data prior to sending to the IODS, then descriptor mapping in the DMC application may not be needed. LEAs should verify and confirm any descriptor values marked as "unmapped" in the DMC application.

Will ESC users be able to access their LEA's data in the DMC?

TEA is still in the process of defining the DMC application access requirements for ESCs as it pertains to their LEAs. The expected access being considered is view-only access to LEA claim sets, Level 2 validations, and summary tables displaying IODS data and validation information.

Because of potential local use, the current design is not expecting to give ESC users access to an LEA's L1.5 filter details. ESCs who need to access these filters to support their LEAs would need to request TEAL access at the LEA level.

FREQUENTLY ASKED QUESTIONS

Will ESC users be able switch between their LEAs within the DMC application?

Yes. ESC users will be able to switch between their organization and their LEAs by using the dropdown header in the DMC application.

TRAINING STRATEGY

COHORT 1: TRAINING STRATEGY & PLAN

tsds

STRATEGY: SUPPORT & OBSERVATION

Ensure testing progress of frequent and incremental releases of TSDS functionality. TEA proactively supports LEAs with resources that promote self-learning and limit the need for instructor-led trainings. ESCs observe training and guidance.

P L A N

Self-Guiding Resources:

TEA promoted self-learning through click sheets and how-to-videos for more intuitive features and then conducted a Level 1.5 Filter Details training course with interaction and demonstration.

Weekly Assignments:

TEA provided week-by-week assignments for LEAs to ensure progress and limit time commitments. LEAs received support from TEA and provided feedback through weekly meetings.

TEA

COHORT 2: TRAINING STRATEGY & PLAN

tsds

STRATEGY: TRAINING WHEELS

Determine the effectiveness of the training resources previously developed with Cohort 1. TEA reactively supports LEAs by offering assistance and guidance only when requested. TEA begins to rely upon ESCs to monitor progress and support.

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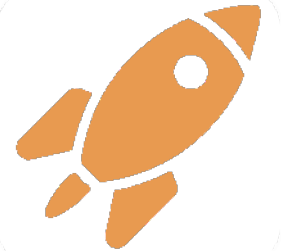
Launch Meeting:

TEA provided all self-guiding resources to LEAs and ESCs during the kickoff launch meeting of Cohort 2 through an online site. LEAs completed click sheets and resources at their own pace.

TIMS Support:

LEAs expected to submit issues through TIMS for any support needed. ESCs begin to get involved in supporting the LEAs. TEA expected to conduct monthly webinars for support and guidance.

TEA

FINAL PILOT: TRAINING STRATEGY & PLAN tsds

STRATEGY: START ON THEIR OWN

Promote knowledge transfer and training to ESCs to support their Pilot LEAs. ESCs will provide direct training and support to assist with access, DMC configuration, and oversight of data loads.

**P
L
A
N**

Resources and Training:

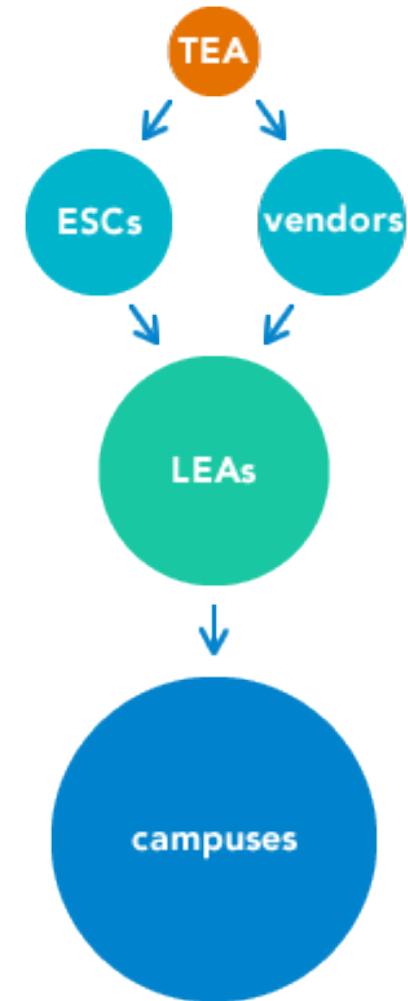TEA provides access to the click sheets, how-to-videos, and additional resources. TEA offers instructor-led training (as needed) and provides guidance on functionality as it is released.

Mentorship and Support:

TEA continues to mentor and support ESCs with Just-In-Time (JIT) training, FCN webinars, and with direct interaction. Training materials continues to be refined based upon feedback.

TEA

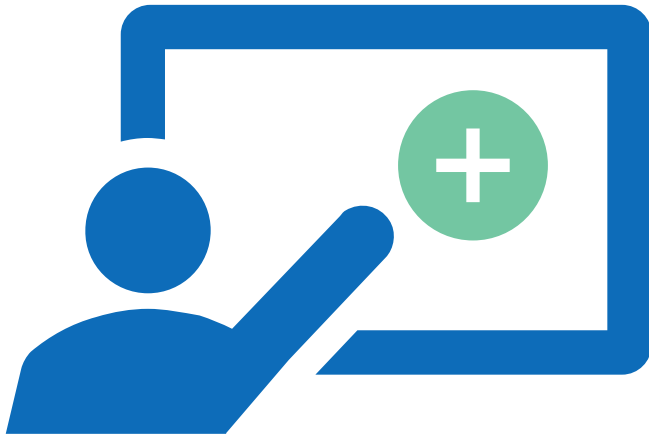# PARALLEL YEAR: TRAINING STRATEGY & PLAN

TRAIN-THE-TRAINER

- **TEA will follow the same train-the-trainer model for the TSDS Upgrade Project as it is for TSDS currently:**
  - Just-In-Time (JIT) Training
  - New User Training (offered in October and February)
  - Continuing Education Training (CET)
  - Field Coordination Network (FCN)

- **TEA will provide certification to ESCs and vendors so they can offer training and support to their LEAs.**

TRAINING COURSES: TO BE REMOVED

tsds

Data Transfer Utility (DTU)	Validation Tool (VT)
Delete Utility	eData Manager (eDM) Data Loading

Technical Champion Curriculum

TEA
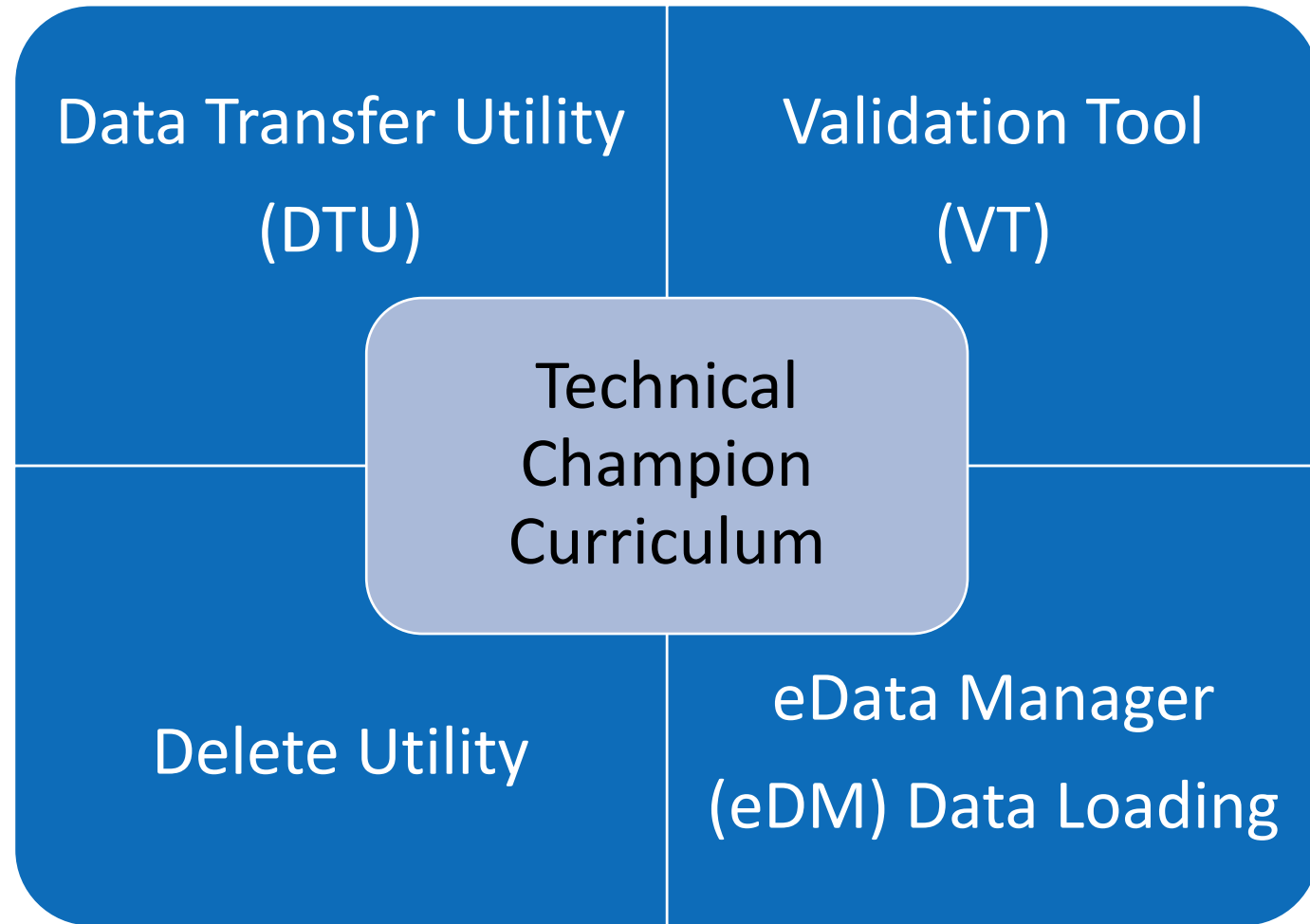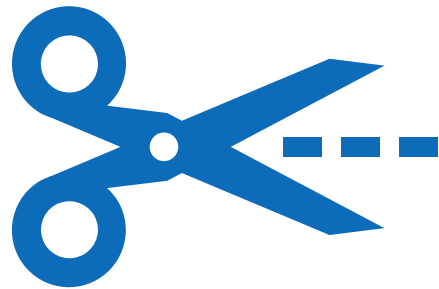
TRAINING COURSES: TO BE ADDED

COURSES

- **DMC LEA/ESC Technical**
- **DMC LEA/ESC Data Monitor**
- **DMC LEA/ESC L2 Validations**
- **DMC LEA/ESC Admin Configurator**

CERTIFICATIONS

- ❑ **TSDS DMC Technical Champion**
- ❑ **TSDS DMC Administration & Security Champion**

TRAINING COURSES: NOT CHANGING

TEDS/TWEDS	TIMS	PEIMS	Unique ID
ECDS	RF Tracker	Charter School Waitlist	SPPI-14
SELA	Class Roster	Child Find	Common Steps for Core

These courses will be updated to reflect the TSDS Upgrade Project.

TSDS TRAINING ADVISORY GROUP (TTAG)

- TEA is in the process of establishing TSDS Training Advisory Groups to assist in the vetting and refinement of TSDS materials.

- The TSDS training team will begin soliciting volunteers in April 2023.

- Additional information and estimated time commitments will be provided during that outreach.

Welcome Back!

FREQUENTLY ASKED QUESTIONS

Will ESCs and vendors need to get recertified for all TSDS?

All current TSDS Technical Champions will need to complete all new DMC courses and certification testing to be certified as a TSDS DMC Technical Champion.

All current TSDS PEIMS Champions and TSDS Core Champions will not need to be recertified but will be required to attend all continuing education training (CET) for the TSDS Upgrade Project.

FREQUENTLY ASKED QUESTIONS

When will the ESCs and certified vendors begin receiving training on the TSDS Upgrade Project?

TEA will offer training to ESCs and certified vendors beginning in July 2023.

Just-in-time (JIT) and continuing education training (CET) offerings will be offered throughout the 2023-2024 school year on the TSDS Upgrade Project.
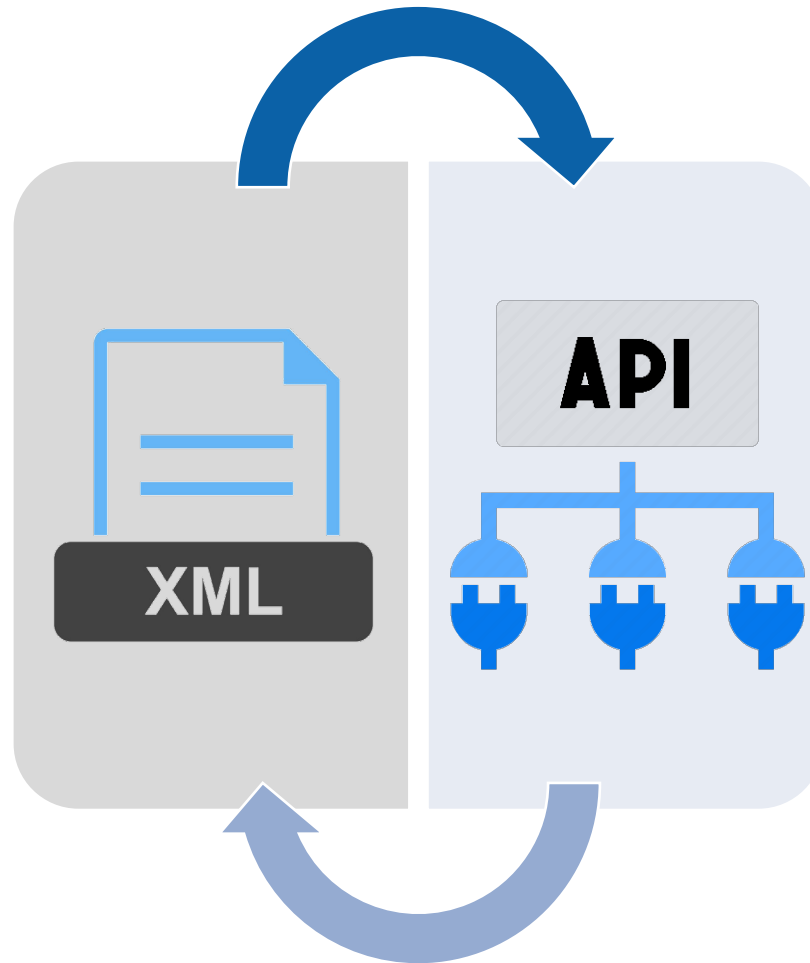
NEXT STEPS

HOW TO PREPARE FOR PARALLEL SUBMISSION

TEA

1 **Communicate**

By May 2023

ESCs should inform their LEAs in their region of the TSDS Upgrade Project and the opportunity to participate in the 2023-2024 Parallel Submission.

2 **Identify**

By June 2023

ESCs should identify any LEA that may have an in-house or custom solution for generating XML files. A migration plan will be necessary.

3 **Coordinate**

By July 2023

ESCs should coordinate with their own vendor(s) to ensure product readiness for submitting their own PEIMS data. Determine timeline for implementation.

4 **Schedule**

By October 2023

ESCs should schedule the training for their LEAs participating in the 2023-2024 Parallel Submission. TEA will begin training ESCs this Summer.

tsds

KEY TAKE-AWAYS

New resources have been published on the Texas Education Data Standards website.

Additional LEAs were added to the Pilot Program. Identify the LEA(s) added for your region.

TEA will begin training ESCs to onboard the remaining Pilot LEAs. TEA will offer additional mentorship and support.

Start preparing for the 2023-2024 Parallel Submission and reach out to TEA for specific needs and considerations.

DMC DEMO

❑ TEAL Roles for LEAs:
  DMC LEA Technical
  DMC LEA Data Monitor

❑ Generating Key and Secret:
  Add Application
  Specify Claim Set
  Provide to Vendor

❑ Level 1.5 Filter Details:
  Unique ID Checks
  Descriptor Mapping
  Resolution Needed for TSDS

tsds

_QUESTIONS