

Migration to Unity

Is there a Toolkit for that?

SESSION PRESENTERS



June Gerred

Program Director
Data and Information Systems
Oklahoma Department of Education



Aziz Elia

Chief Software Architect
Cloud Solutions and Integration
CPSI Ltd

Why Would You Do That?

Current SIF version very outdated

Modernize our overall K12 Education SLDS

APIs are really cool

Phase I

Gap Analysis between 2.7
and Unity 4.3

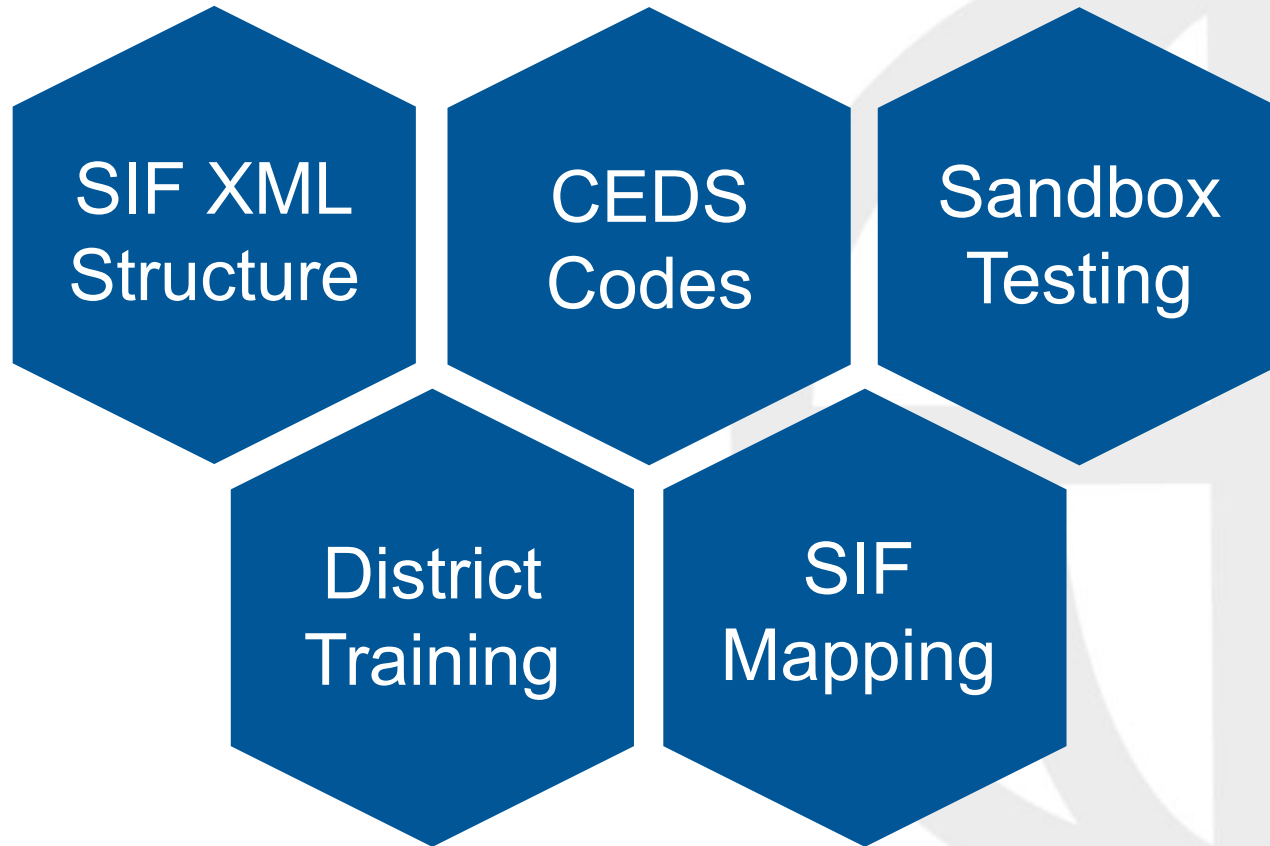
Hybrid approach SIF 2.7
and 4.3 combined

Two-year implementation
ending with Unity 4.3

Phase I - Planning



Phase I – Challenging Actions



Phase I – Disruption

Go live readiness

Structure validation failures

Impact of code sets

Phase I – Mitigation

Monitor and adjust

Downstream implications

Calming the storm

Phase II – Special Ed Migration

3rd Party early migration to
Unity for data exchange

Inbound from SDE to PCG &
Outbound from PCG to SDE

StudentParticipation and
StudentPlacement objects

Phase II

Vendor discussions and
commitment refresher

Unity transition from SIF
agent to APIs

Testing and chunked
migration

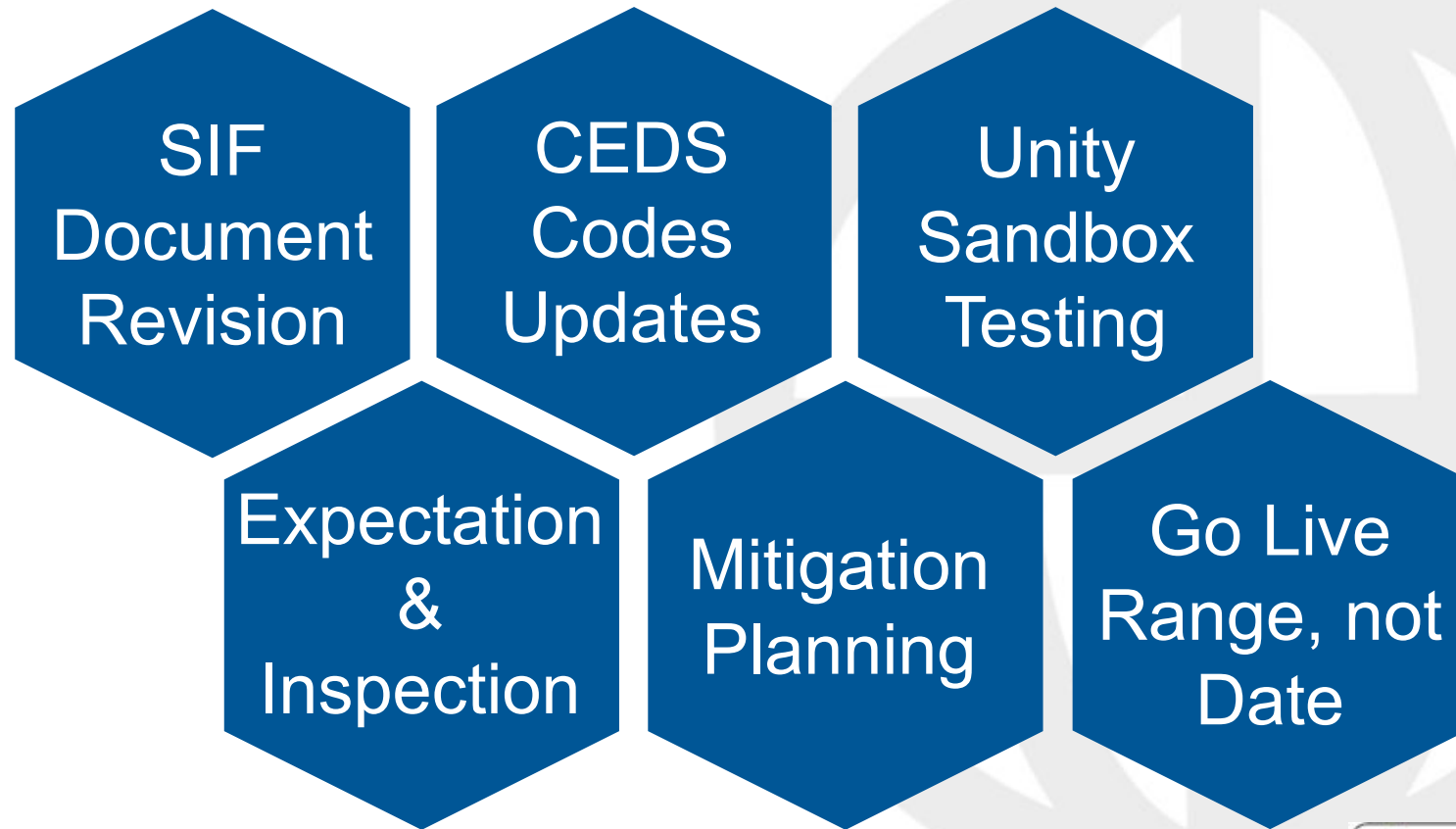
Phase II – Sandbox Milestones

Milestone	Description	Due Date
Sandbox Ready	CPSI will ensure the sandbox is ready by December 11, assuming that OMES can provide us with the required access by that date.	12/11/24
Contact CPSI	Vendors should contact CPSI informing us that they are ready to connect and test in the OKSDE SIF 4.3 Test Bed.	1/24/25
Configure Consumer Endpoints	CPSI will configure an Endpoint Consumer for your testing and provide you with the documentation to attach via OAuth as well as a POSTMAN Collection and Environment, and a Swagger OPEN API Document for the Data Collection.	Within 2 days of vendor connecting
Work in Sandbox	Vendors will configure their connectors in the sandbox.	2/21/25
XSD Validations	CPSI will run XSD Validations against the data being sent to ensure that the XML structure is sound and valid.	Within 3 days of notification of connector completion
Code set Validations	CPSI will run validations against the data for Code Set adherence and inform you of the issues.	Within 3 days of notification of connector completion
Complete Testing	Vendor will complete testing and be ready to move to production.	3/14/25

Phase II – Production Milestones

Milestone	Description	Due Date
Approval for Production	The success of connecting the single District to production will determine if the other districts supported by your SIS will be able to connect to the state via the API.	3/14/25
Create Zones	CPSI will create the zones for the districts a they are ready to make the move to production.	3/14/25 to 5/23/25
Vendor Registration	The vendor will register the consumers in the xDBroker for the district.	3/14/25 to 5/23/25
Test	CPSI will make sure the configuration is complete to allow the vendor to provide the data.	3/14/25 to 5/23/25
Publish Data	The vendor can start publishing data to the production zone.	3/14/25 to 5/23/25
Remove from SIF Agent	Remove the district from the legacy xDStore SIF Agent.	3/14/25 to 5/23/25
Test	Test in production to ensure that data is being received properly.	3/14/25 to 5/23/25
Complete Move to Production	All districts will be moved over to Unity by the drop-dead date of 6/15/25.	6/15/25

Phase II – Actions



Phase II – Transparency

Unity Implementation Sandbox Completion by 3/14/2025				
Milestone Expectations	Vendor 1	Vendor 2	Vendor 3	Vendor 4
Documentation delivered 12/18/24	☒	☒	☒	☒
Sandbox connection & infrastructure delivered 12/30/24	☒	☒	☒	☒
Vendor confirmed sandbox connection	☒		☒	☒
Endpoint consumer configured by CPSI	☒	☒	☒	☒
All objects posted in the sandbox	1/24	0/24	☒	5/24
XSD validations				
Code set validations				
Vendor testing complete				

Using SIF 2.7 and SIF 4.3 Unity in the same Solution

Develop a Robust and Complete
SIF 2.7 State Profile with Unity
Code Sets (CEDS)

Migrate the SIF 2.0r1 Data
Collection Store (ODS) to 4.3 Unity
Data Model

Modify the ODS Data Layer to Convert
SIF 2.7 to the SIF 4.3 Unity Data Model
on the Fly in Real Time

Using SIF 2.7 and SIF 4.3 Unity in the same Solution

Connect the Current Zone Integration Servers to the Updated SIF 2.7 to SIF 4.3 Data Layer Translator

Test and Ensure that the STN (StateProvinceId) Sent Back to the SIS Vendors Is in the SIF 2.7 Data Format

Test the Request-Response Process Between the SIF 2.7 Data Model and the SIF 4.3 Unity Data Model

Deploy the SIF 4.3 Unity Sandbox for SIS Vendor Testing

Deploy the SIF Unity 4.3 REST Data Collection API Endpoints for the Sandbox

Configure and Deploy the Data Validations for the SIF 4.3 Unity Data Model and Code Sets

Configure XSD Validation for Both JSON and XML to Identify Data Structures that Don't Meet the SIF 4.3 Unity Model

Deploy the SIF 4.3 Unity Sandbox for SIS Vendor Testing

Create the Consumer Endpoints,
Security, and OAuth 2.0 Access to
Provide Custom Documentation

Provide the SIS Vendors with API
Documentation in the Form of OpenAPI
and Postman Collection Documents

Set Up Sync Queues for Each SIS Vendor to
Test Receiving of STN Responses and
Responding to State Data Requests

Deploy the SIF 4.3 Unity Sandbox for SIS Vendor Testing

Once the Testing Begins on the Larger Data Objects, Discuss With the SIS Vendors the Immediate vs. Delayed API Calls

Discuss the Use of Queries, Sync, and Admin Directives for Request/Response Models With the SIS Vendors

Each SIS Vendor Will Have to Pass the State Profile Data Validation Prior to Moving Their District to the Production 4.3 Unity Data Collection Endpoints

Deploy the SIF 4.3 Unity Data Collection in Production

Migrate the Zones From the Zone Integration Servers to the xDBroker while Maintaining Zone Routing Tags

Create the Production District Consumer Endpoints and Generate the Custom Documentation for Each District

Begin the Testing With the SIS Vendors Who Are Approved to Move Their Districts to Production

Alternative Plan to accommodate District Data

SIS Vendors Ready for Unity will Migrate Their Districts' Connection to the REST API Endpoints

Districts That Have Not Been Migrated to the REST API will Continue to Submit 2.7 Data via the Legacy System

Data Submitted via the Legacy 2.7 System and via the REST API will Reside in the Same Unity 4.3 ODS