2015 Ed-Fi Alliance Summit

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ALLIANCE

It all adds up.

Ed-Fi Data Standard Overview

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Ed-Fi Data Standard & Implementation Suite

- **Ed-Fi Data Standard**
  - The Ed-Fi Data Standard serves as the foundation for enabling interoperability among secure data systems and contains a Unifying Data Model designed to capture the meaning and inherent structure in the most important information in the K–12 education enterprise.

- **Ed-Fi Operational Data Store and API**
  - The Ed-Fi Operational Data Store (ODS) provides a place to store information that integrates and catalogs secure real-time data from other systems within your agency, regardless of the source and supports transactional data.
  - The Ed-Fi ODS API provides the ability to selectively create, read, and update information stored in an Ed-Fi powered ODS, maximizing developer productivity and success.
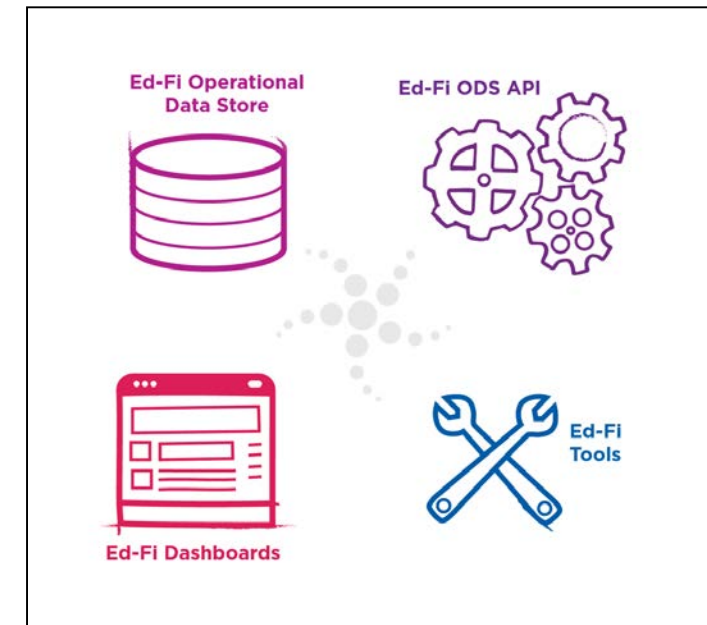
- **Ed-Fi Dashboards**
  - Ed-Fi Dashboards provide a starting point for developing student performance dashboards that put real-time, actionable information at the fingertips of educators.

- **Ed-Fi Tools**
  - Ed-Fi Tools aid developers implementing the technical components of the Ed-Fi Implementation Suite. Specifically, the online Ed-Fi Validation Tool helps users streamline the testing process by verifying exchanges are working correctly.
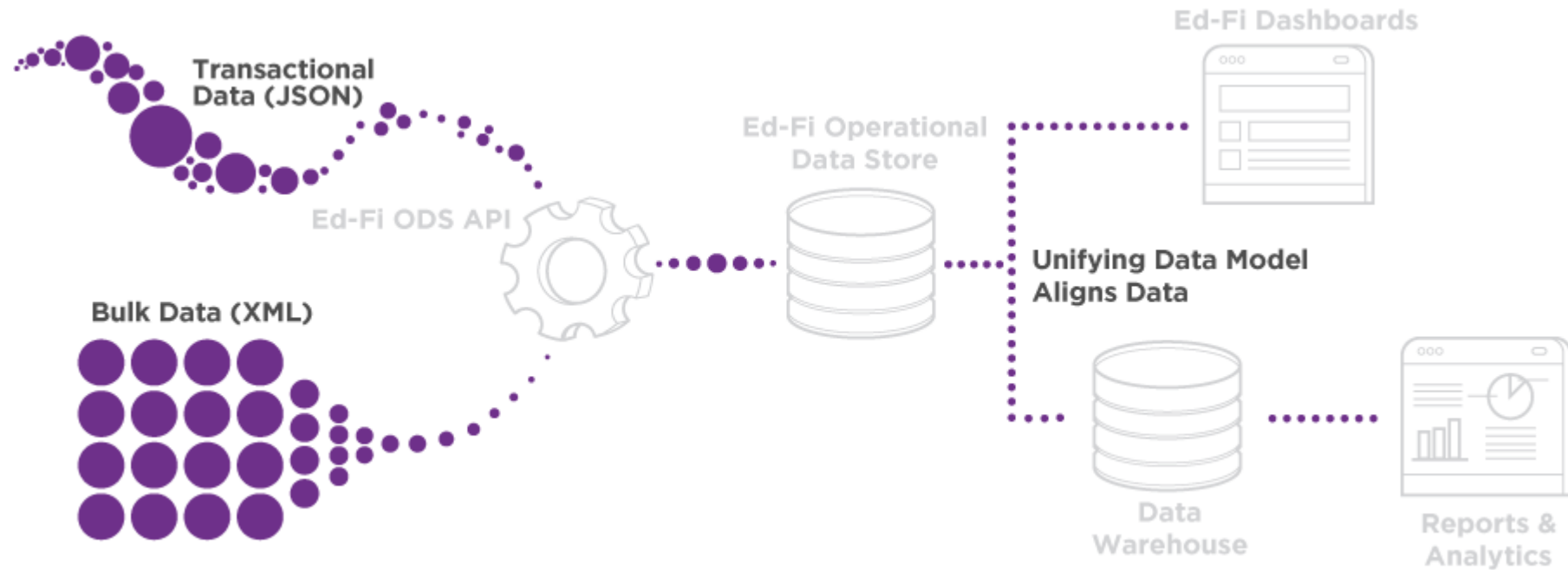
Domains	
Alternative/Supplemental Services	Intervention
Assessment	School Calendar
Bell Schedule	Staff
Discipline	Student Academic Record
Education Organization	Student Attendance
Enrollment	Student Cohort
Finance	Student Identification and Demographics
Graduation	Teaching and Learning

Ed-Fi Operational Data Store

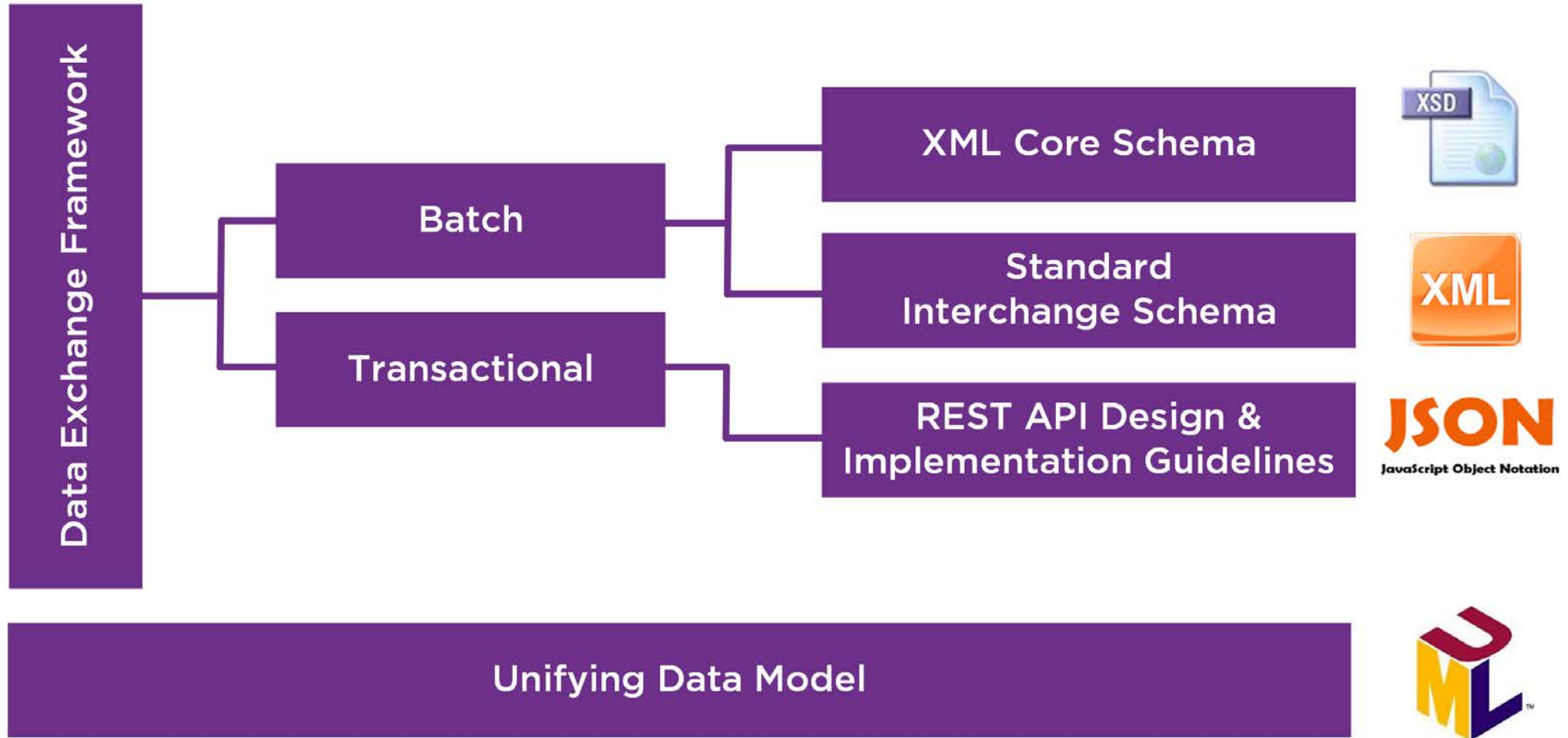Ed-Fi ODS API

Ed-Fi Dashboards

Ed-Fi Tools

Ed-Fi Data Standard

The Ed-Fi Data Standard provides a vehicle for education data interchange and a foundation for populating an Ed-Fi ODS or other data systems
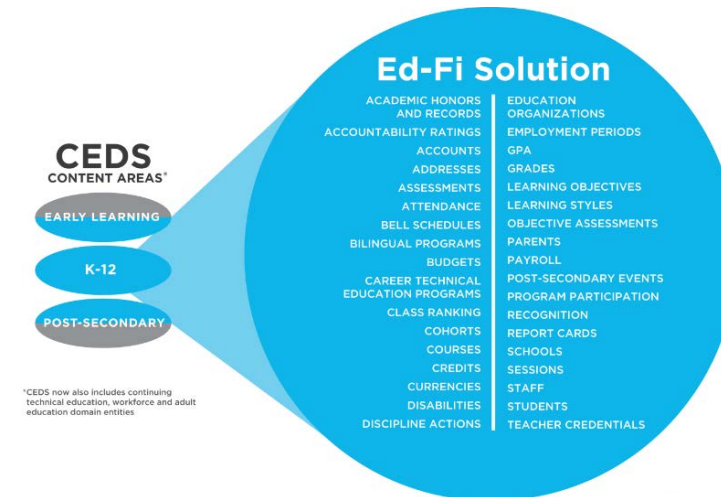
Ed-Fi Data Standard

Unifying Data Model

- Enterprise data model of K-12 education data

- Aligned to the Common Education Data Standards (CEDS)
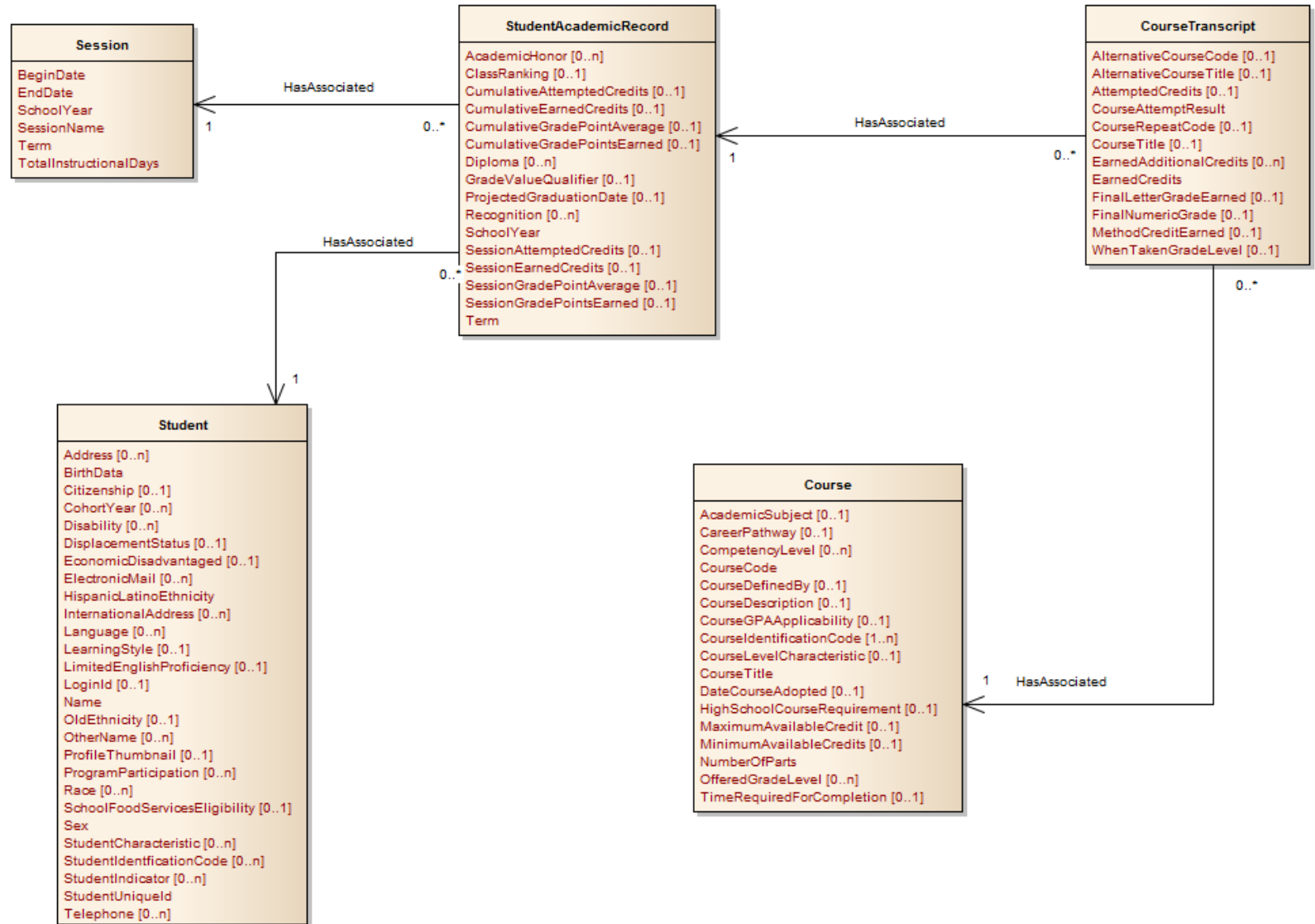
- Informed by use cases and field implementations

Domains	
Alternative/Supplemental Services	Intervention
Assessment	School Calendar
Bell Schedule	Staff
Discipline	Student Academic Record
Education Organization	Student Attendance
Enrollment	Student Cohort
Finance	Student Identification and Demographics
Graduation	Teaching and Learning

Unifying Data Model

- The Ed-Fi UDM is an abstract model
- The basis for designs and artifacts in the data exchange framework

Session

- BeginDate
- EndDate
- SchoolYear
- SessionName
- Term
- TotalInstructionalDays

StudentAcademicRecord

- AcademicHonor [0..n]
- ClassRanking [0..1]
- CumulativeAttemptedCredits [0..1]
- CumulativeEarnedCredits [0..1]
- CumulativeGradePointAverage [0..1]
- CumulativeGradePointsEarned [0..1]
- Diploma [0..n]
- GradeValueQualifier [0..1]
- ProjectedGraduationDate [0..1]
- Recognition [0..n]
- SchoolYear
- SessionAttemptedCredits [0..1]
- SessionEarnedCredits [0..1]
- SessionGradePointAverage [0..1]
- SessionGradePointsEarned [0..1]
- Term

CourseTranscript

- AlternativeCourseCode [0..1]
- AlternativeCourseTitle [0..1]
- AttemptedCredits [0..1]
- CourseAttemptResult
- CourseRepeatCode [0..1]
- CourseTitle [0..1]
- EarnedAdditionalCredits [0..n]
- EarnedCredits
- FinalLetterGradeEarned [0..1]
- FinalNumericGrade [0..1]
- MethodCreditEarned [0..1]
- WhenTakenGradeLevel [0..1]

HasAssociated   1   0..*

HasAssociated   1   0..*

HasAssociated   0..*   1

0..*

Student

- Address [0..n]
- BirthData
- Citizenship [0..1]
- CohortYear [0..n]
- Disability [0..n]
- DisplacementStatus [0..1]
- EconomicDisadvantaged [0..1]
- ElectronicMail [0..n]
- HispanicLatinoEthnicity
- InternationalAddress [0..n]
- Language [0..n]
- LearningStyle [0..1]
- LimitedEnglishProficiency [0..1]
- LoginId [0..1]
- Name
- OldEthnicity [0..1]
- OtherName [0..n]
- ProfileThumbnail [0..1]
- ProgramParticipation [0..n]
- Race [0..n]
- SchoolFoodServicesEligibility [0..1]
- Sex
- StudentCharacteristic [0..n]
- StudentIdentficationCode [0..n]
- StudentIndicator [0..n]
- StudentUniqueId
- Telephone [0..n]

Course

- AcademicSubject [0..1]
- CareerPathway [0..1]
- CompetencyLevel [0..n]
- CourseCode
- CourseDefinedBy [0..1]
- CourseDescription [0..1]
- CourseGPAApplicability [0..1]
- CourseIdentificationCode [1..n]
- CourseLevelCharacteristic [0..1]
- CourseTitle
- DateCourseAdopted [0..1]
- HighSchoolCourseRequirement [0..1]
- MaximumAvailableCredit [0..1]
- MinimumAvailableCredits [0..1]
- NumberOfParts
- OfferedGradeLevel [0..n]
- TimeRequiredForCompletion [0..1]
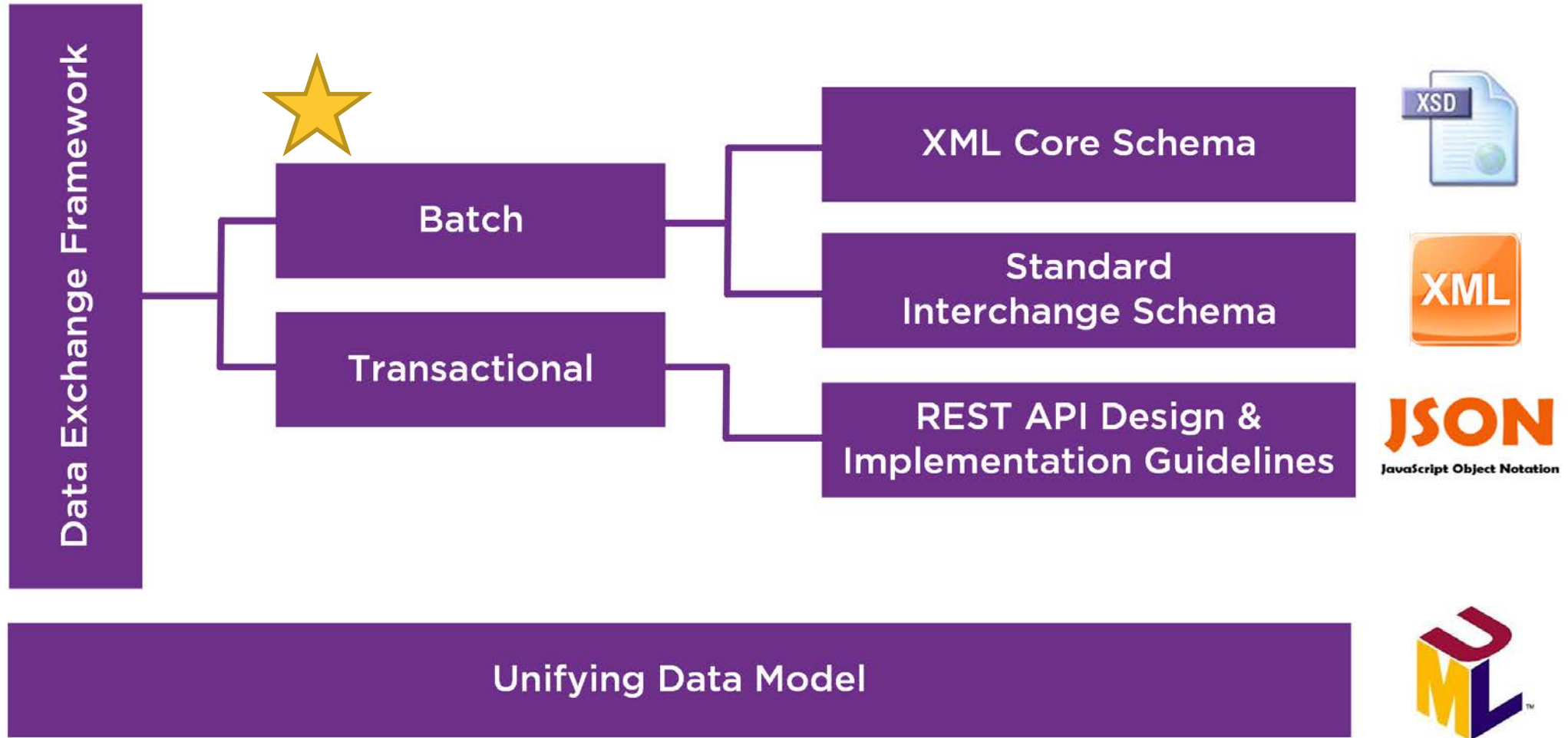
HasAssociated   1

HasAssociated   1

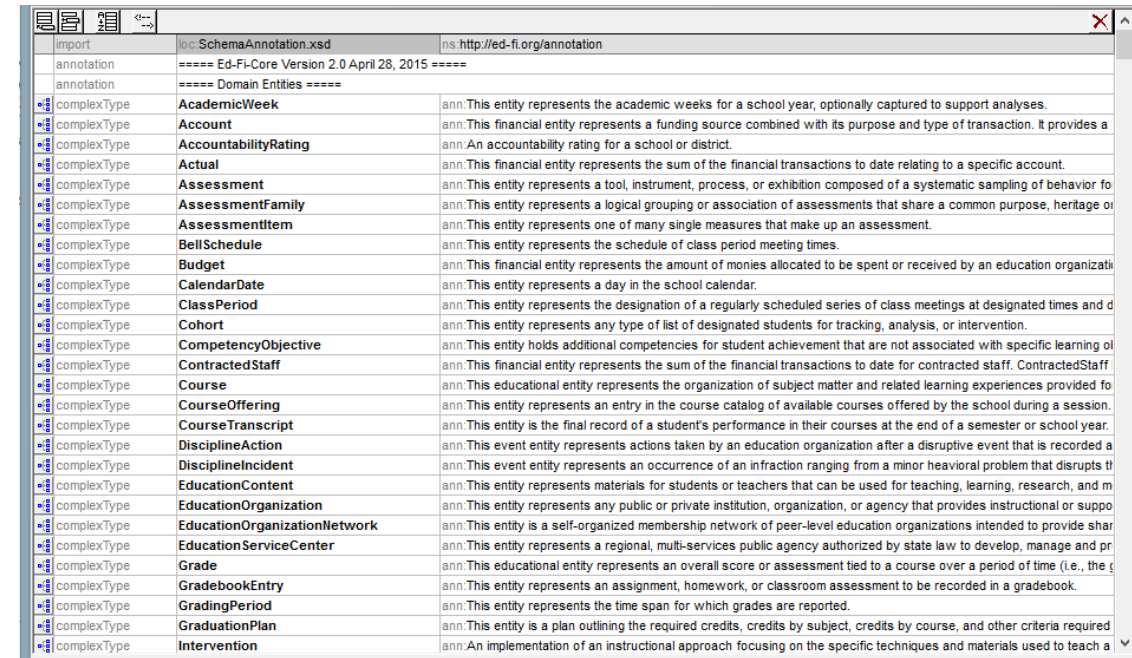# CEDS Alignment

Ed-Fi Data Standard
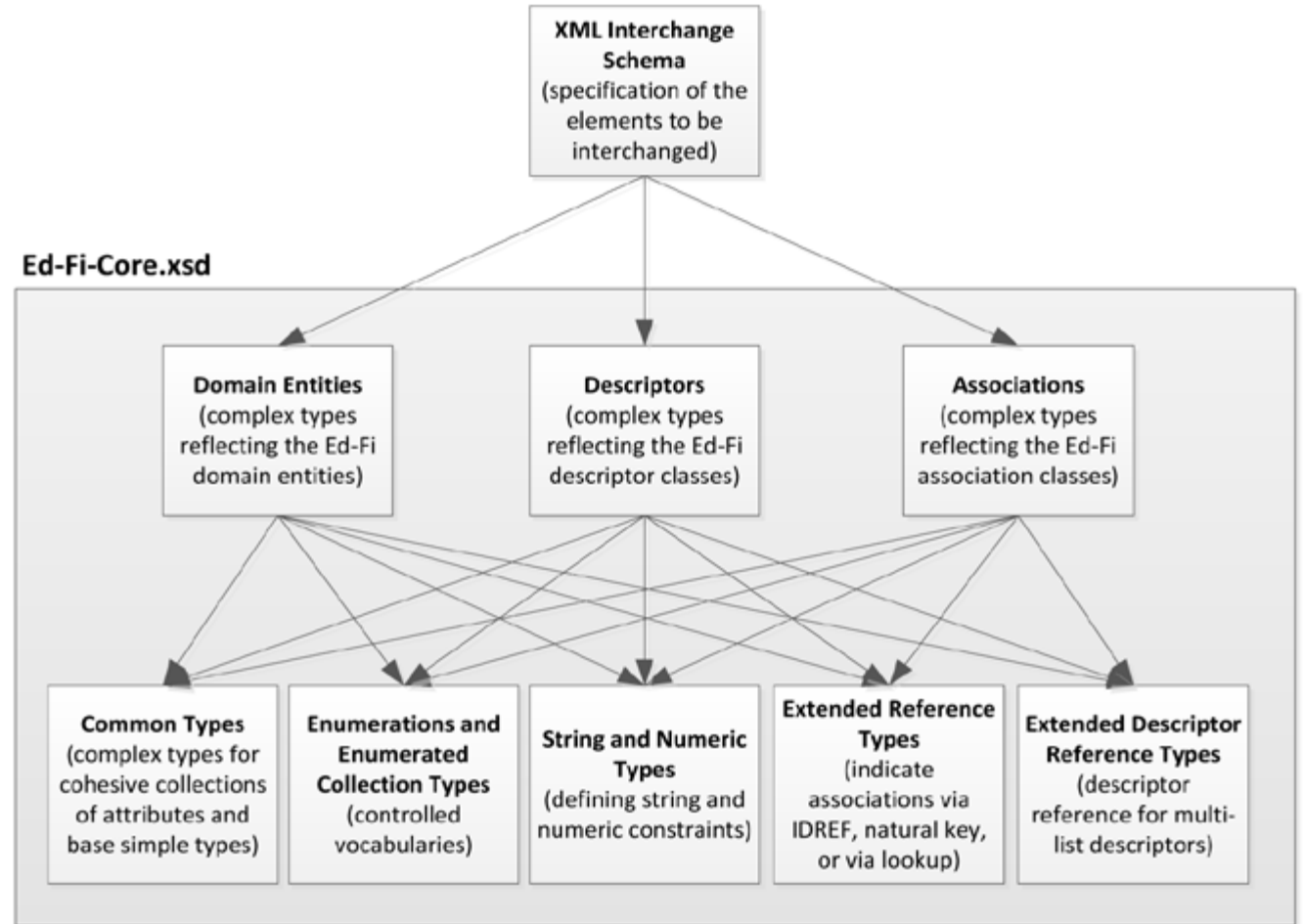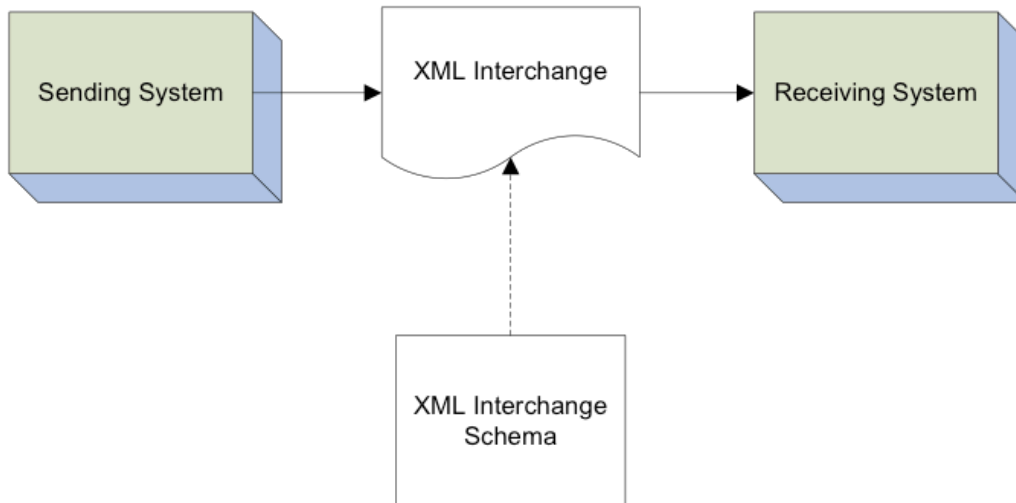
Ed-Fi Data Standard

Data Exchange Framework

1. XML Core Schema: A core set of domain, association, and attribute types that directly map to the Unifying Data Model – "building blocks"

2. A method for composing interchange schemas

3. A method for extending the XML core schema and interchange schemas to account for implementation-specific data

Ed-Fi Interchange Schemas

- Ed-Fi Interchange Schemas define the structure of XML data to transport data between systems
- Composed of elements from the domain and association types available in the Ed-Fi Core XML Schema

Ed-Fi Standard Interchange Schemas

- Ed-Fi Version 2.0 contains a set of 21 Standard Interchange Schemas.
- Represent field-tested schemas for bulk interchange of data based on the Ed-Fi Core XSD.

Assessment Metadata	Student
Descriptors	Student Assessment
Education Organization	Student Attendance
EdOrg Calendar	Student Cohort
Finance	Student Discipline
Master Schedule	Student Enrollment
Parent	Student Grade
PostSecondary	Student Gradebook
Staff Association	Student Intervention
Standards**	Student Program
	Student Transcript

Ed-Fi Extensions Framework

- A method and examples for extending the Ed-Fi XML core schema and composing interchange schema to account for implementation-specific data and use cases
- Extensive documentation in the <u>Ed-Fi Data Standard – Developers Guide</u>
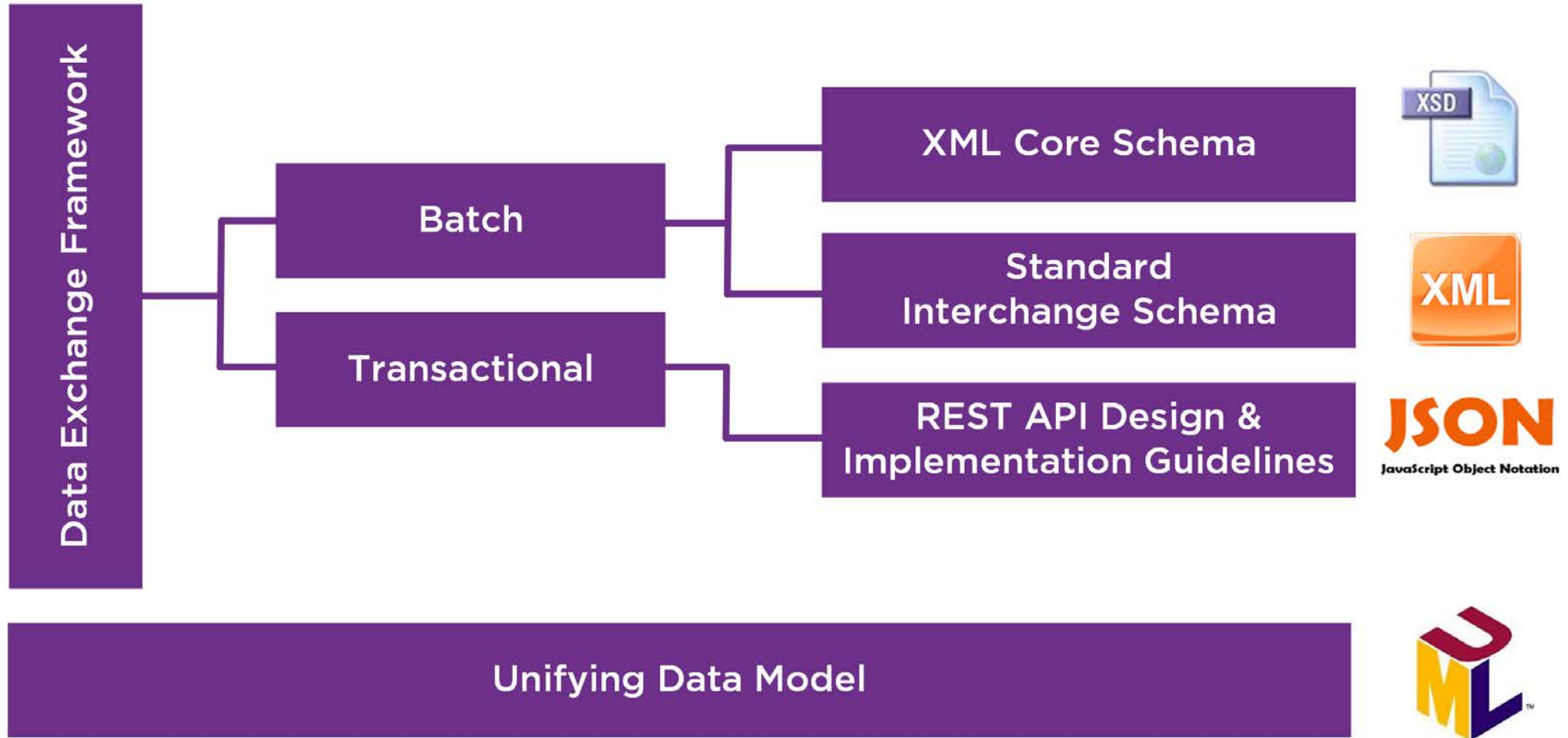- Training Video: <u>How to Compose a Custom Interchange Schema</u>

Ed-Fi Data Standard
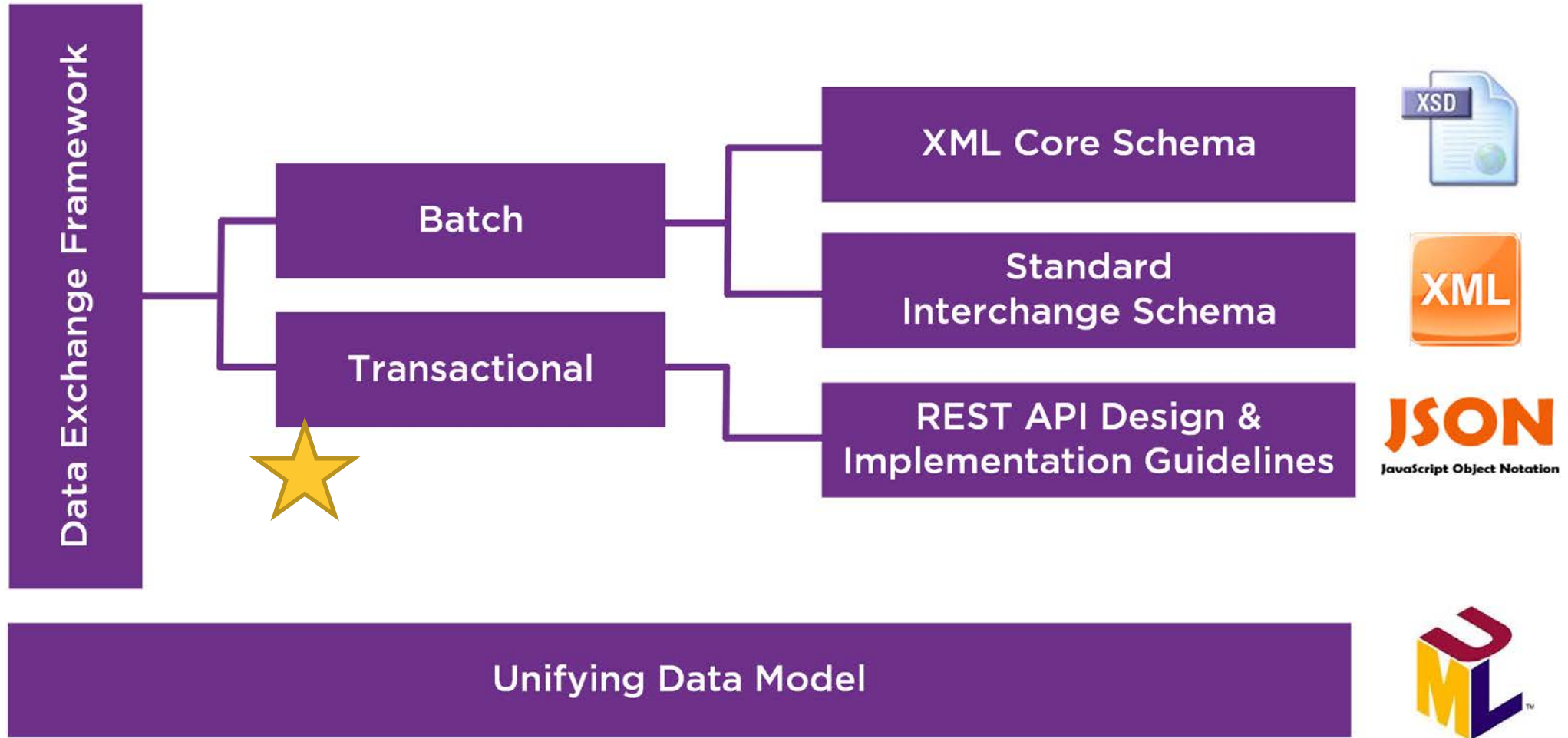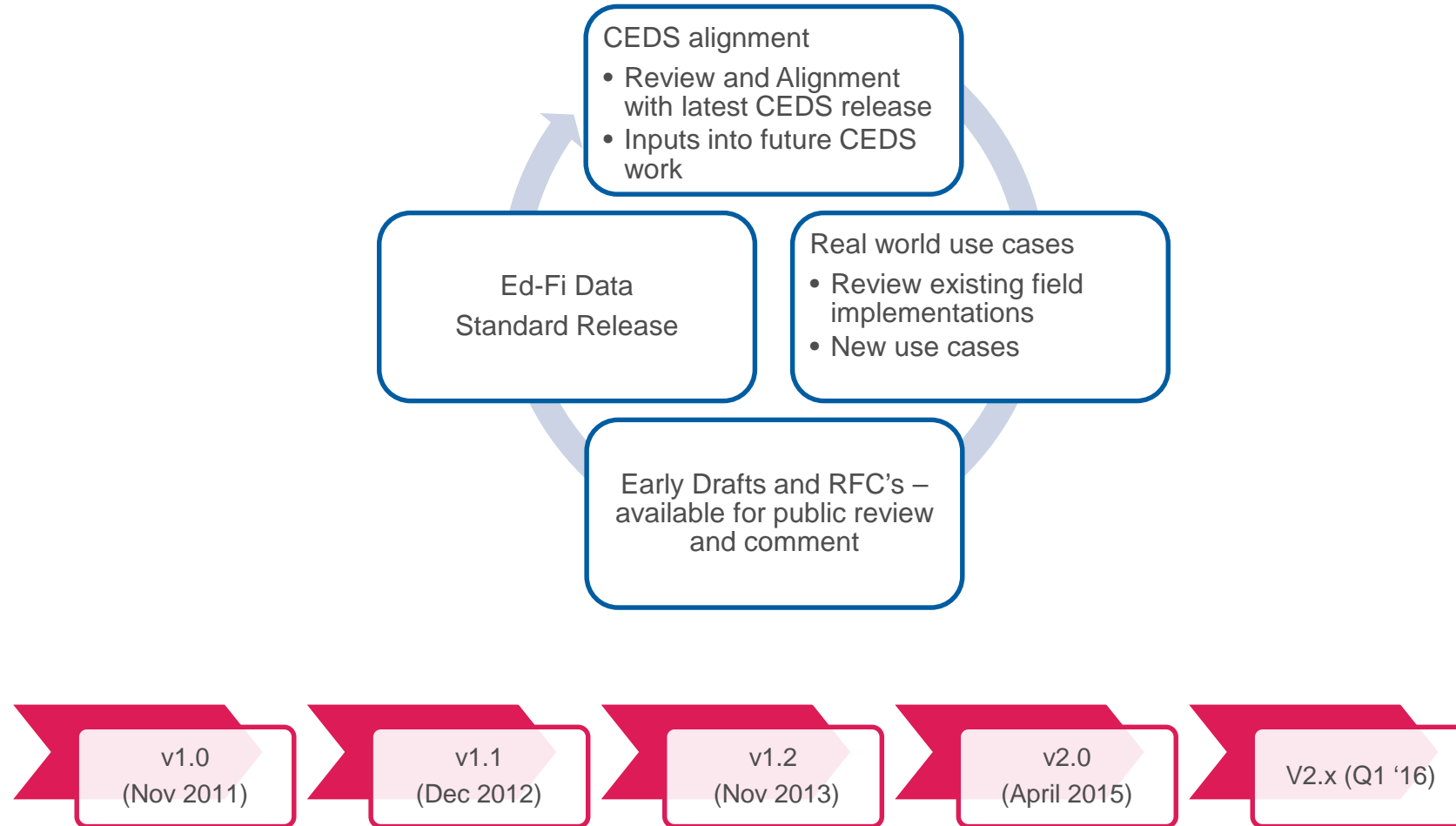
REST API Design & Implementation Guidelines

Ed-Fi Data Standard

Session Call-out

- Introduction to Data Mapping (Weds @ 9:50am)

Data Standard Release Cycle

CEDS alignment
- Review and Alignment with latest CEDS release
- Inputs into future CEDS work

Ed-Fi Data Standard Release

Real world use cases
- Review existing field implementations
- New use cases

Early Drafts and RFC's – available for public review and comment

v1.0 (Nov 2011)

v1.1 (Dec 2012)

v1.2 (Nov 2013)

v2.0 (April 2015)

V2.x (Q1 '16)

Questions