From SIF to Unity: The Complete and Most Utilized K12 Education Data Standard Alive and Growing in States!

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Evolution of an education standard

1997

- Initial discussions and concept development
- Microsoft hold first collaboration meetings to discuss interoperability
- Official launch of Schools Interoperability Framework (SIF) Association
- First working draft SIF Specification released
- SIF Certification Program launched

1998

- SIF Specification (US) 1.0 released

2000

- SIF Specification (US) 1.5 released

2001

- SIF Specification (US) 2.0r1 released

2003

- SIF Infrastructure Specification 3.0.1 (global) released

2004

- SIF Data Model Specification (US) 1.0 released

2005

- SIF Data Model Specification (UK) 1.0 released

2006

- SIF Data Model Specification (US) 2.0 released

2007

- SIF Data Model Specification (North America) 2.7M released

2008

- SIF Data Model Specification (North America) 3.0 released

2010

- SIF Data Model Specification (UK) 2.0 released

2011

- SIF Data Model Specification (AU) 1.0 released

2013

- SIF Data Model Specification (AU) 3.4 released

2014

- SIF Data Model Specification (NZ) 3.0 released

2015

- Unity Specification (North America) Mappings Release published
- Unity Specification (North America) Personal Privacy Release published

2018

- First SIF xPress APIs released
- Unity Specification (North America) Mappings Release published
- Unity Specification (North America) Personal Privacy Release published

2019

- Access 4 Learning (A4L) Community is launched
- SIF Data Model Specification (NZ) 3.0 released

2020

- SIF Data Model Specification (AU) 3.4 released

2021

- SIF Data Model Specification (North America) 3.0 released

https://www.A4L.org

Connecting and Securing Effective Learning Ecosystems™

https://privacy.A4L.org
Utilization of an open, education standard

SIF Specifications used in all States

Data Function Usage

- Horizontal Interoperability
- Rostering
- State Longitudinal Data Systems (SLDS)
- Student Locator
- Student Records Exchange
- Transcripts

BLUE = currently used in the State
GREEN = being used in statewide implementation
Unity Specification

https://www.a4l.org/page/Unity
Common Uses for Unity...

- **Reporting**: Federal and often by State
- **Attendance**: By period or as a summary
- **Assessments**: Administration, recording and between app movement
- **Learning Applications**: Rostering
- **Lunch System**: Access and Account Status
- **Transportation**: The perfect address for every situation
- **Library**: Access and Fines
Future world and beyond….

- **Unity Development**: Enhancing the specification
- **State Requests**: Directly drafting changes into Unity and reviewing
- **Unity Adoption**: Updating Grade Pass Back to focus on Data Hub ecosystems
- **CEDS Alignment**: Contributing Privacy Domain to CEDS
- **Infrastructure**: Friendlier documentation
Oklahoma: Use Cases

- SIF Unity Use Case:
  - English Language Learners data exchange

- SIF 2.X Use Cases:
  - Oklahoma’s overall Student Information System
  - Student Data Collection
    - 25 SIF Objects (near real-time)
    - 7 different SIS vendors
  - OK Special Education statewide platform data exchange with the EdPlan SPED application
  - Integration with EduSkills
  - Integration with Ellevation
Oklahoma: Features

- Integration with Pandemic PEBT in collaboration with OMES, the Oklahoma Department of Health Services, Google, SpringML, and CPSI
- Integration with Early Learning for Unique IDs
- Real-time validations of data entering the ODS
- Automated Student ID numbers returning to districts
- Near-real-time data exchange
- Recently moved entire system into the cloud
Oklahoma: Statistics

- Started in SIF 2.0 in 2008 for K-12 Data Collection of student, course, education professional, and student incident and discipline data
- 520 districts sending real-time SIF data to our Wave data system using CPSI tools and ODS
- 100% of districts use SIF
- 46 million + total number of records updated and entered into the Wave ODS on a weekly basis via real time events and the Request Response Process
Massachusetts: Use Case

Statistics

- Started in SIF 2.0 in 2012 for K-12 Data Collection of student, course, education professional, and student incident and discipline data
- 423 districts sending real-time SIF 2.7x data to our SIF Unity Messaging Platform, CedarLabs
- 99% of districts with 99.99% students
- 12 SIF certified SIS Vendors sending 18 Objects
- Average 1.2 M transactions per day

SIF provides a rich, extensible standard for Data Collections messaging!
Implementation and systems integration choices matter most for implementation success.
Massachusetts: Use Case

Features

- Student ID Request/Return Messages
- Homeless and Foster Care
- SLDS (Edwin) and the Statewide Data Research Hub
- Early Warning Indicator System (EWIS)
- Teacher Candidate Assessment of Performance (CAPS)
- 10 other applications and growing, including Pandemic - EBT
- Self-Service BI & Data Analytics for policymakers
Massachusetts: Next Steps

Standardization
- Standardizing on SIF Unity Messaging and data Collection Platform for Education
- Districts without SISs to file data to the Unity Platform using a flattened version of the SIF Objects

Integration
- Integrate High School College Student records between K12 and Higher Ed.
- Integrate Community and State College with State
- Expand District Data Hub local integration pilots
Modernization

- Modernizing and consolidating all applications in EOE Portfolio
- Encourage and facilitate vendors adopting Unity Architecture as able

Enhancement

- Exploring implementation of Global Education Privacy Standard (GEPS) in Unity
Linking privacy to interoperability

- Increased interoperability without the inclusion of privacy requirements = increased **RISK**.
- **BOTH** data sharing and privacy parameters must be identified and communicated.
- Learning institutions often do not have the human and/or fiscal resources to successfully address both parameters.
- A4L and Student Data Privacy Consortium (SDPC) is the **ONLY** community collaboration that is addressing **BOTH** interoperability and privacy.

The A4L and SDPC Communities will help schools and marketplace providers establish ‘**connected, secure and effective k12 ecosystems**’
Enabling Privacy Expectations

Automate Contract Clause Expectations Exchange and Vendor Verification

The ‘POD’ (Privacy Obligation Document)

Enabled in global SIF Infrastructure

Header

POD – Technical applicability

Contract

Legal obligations

Technical obligations

Data access
Subject specific obligations
Condition list
Data deletion obligations
Data controller obligations
Data processor obligations
Data sub-processor details

https://www.A4L.org

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https://privacy.A4L.org
Global Education Privacy Standard (GEPS)
Benefits of the SIF Standard...

LEAs want:
- State reporting streamlined
- Rostering
- Identity management

SEAs want:
- Data collection streamlined for internal accountability
- Federal reporting streamlined
- Flexibility and performance
**Benefits of the A4L Community**

- Responsive to End User needs and use cases
- Looking to work with other standards and mapping to them
- States helping States Project Team - enabling best practice conversations between States
- Open, friendly Community looking to help the education marketplace
- Developing the most comprehensive standard
- Ready and willing to listen to the needs of their members, and respond swiftly
- Ready to grow with their members - willing to modernize with new and upcoming technologies
- Large, engaged international Community with extensive use cases and willing to share
Connecting and Securing Effective Learning Ecosystems™

CIOs MUST address:

- Application Vetting
- Contracting Process
- App Management
- Integration
- Secure Data Exchange
- Quality Control
- Professional Learning
## Additional Resources

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