Leveraging a statewide SIF infrastructure for seamless Generate reporting

CENTER *for the* INTEGRATION *of* IDEA DATA

cedarlabs

Introductions

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Agenda

- Why Generate
- Iowa's journey
- SIF → Generate pilot project
- Next steps
- Q&A

1 Why Generate

Generate

Generate Status Nationally

22 SEAs currently implementing Generate

17 States with current CIID intensive support

- Iowa
- Colorado
- Kansas
- Maine
- Michigan
- Minnesota
- Mississippi
- Montana
- Nebraska
- New Hampshire
- New Jersey
- Oklahoma
- South Carolina
- Utah
- Vermont
- Washington
- West Virginia

5 Additional States are implementing or have implemented

- Nevada
- Kentucky
- Minnesota
- Bureau Indian Education
- Commonwealth Northern Mariana Islands

Generate Community

- Generate Governance Group (G3) Leadership
- Generate Governance Group (G3) Interest Group
- CEDS Open Source Community
- CIID Technical Assistance

OPEN SOURCE COMMUNITY

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Iowa's EdFacts journey

Where we've been and where we are going

Infrastructure overview

- Iowa data collection modernization strategy
- Revamped student level collection built on A4L SIF/Unity
- Iowa's SLDS is a system of systems jointly owned and governed by multiple agencies within and outside the Iowa Department of Education

Project History

- EdFacts files contain data from multiple sources
- Most are compiled manually using SAS and pockets of old school spreadsheets
- Requires significant coordination and communication
- Uneven QA efforts
- Latency in review by program offices

Opting for Generate

- Some CEDS groundwork in place already
- Streamline and improve EdFacts reporting
- Impending retirement of EdFacts coordinator
- Funding via FY19 SLDS Grant
- Technical assistance from CIID

Project Goals

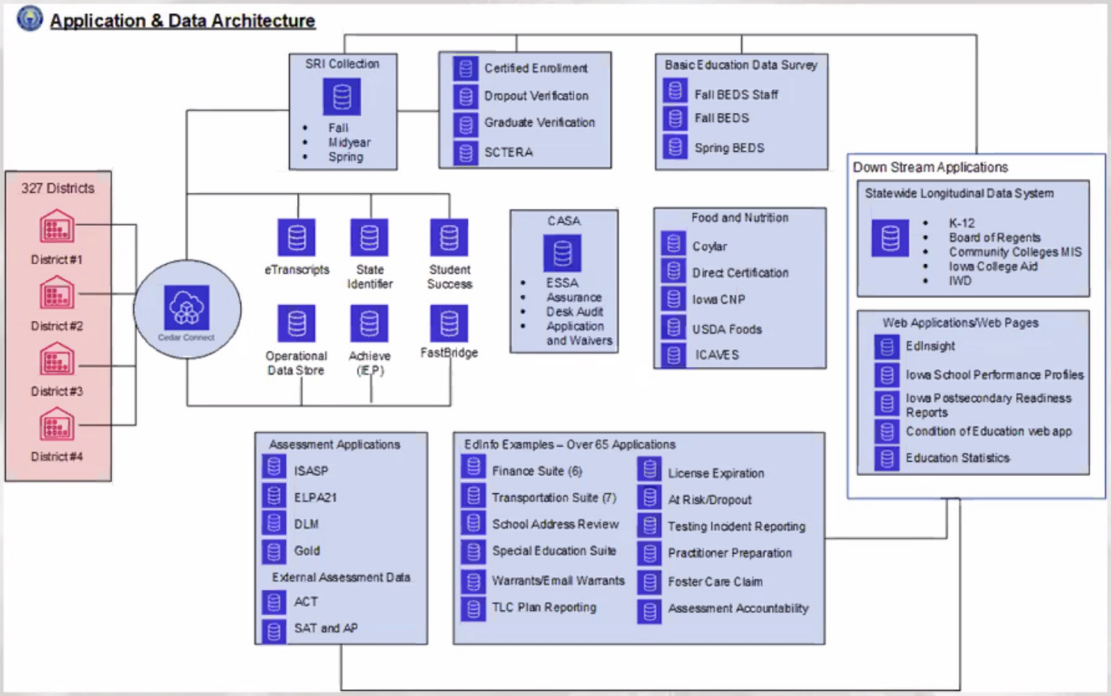
- Improve efficiency through automation – eliminate wait times for manually pulling data
- Reduce error risk
  - Less manual work
  - More time, better format for data steward review
- Improve data quality
  - Retrieve data at the source
  - Use Generate's built-in QC

Current Project Status

- ✓ Map data elements to CEDS
- ✓ Validate CEDS mappings
- ✓ Review business rules
- ❑ Write and validate ETL code (in process)
- ❑ Stand up Generate in dev environment
- ❑ Run new ETL on prior year source data and compare to prior year EdFacts submissions
- ❑ Update process, mappings, and code as needed

3 A4L SIF Unity → Generate pilot

SEA Data Collections and Constant Change



Connecting & Securing Effective Learning Ecosystems ™

Access 4 Learning Community
Powered by: SIF

Student Data Privacy Consortium

About Cedar Labs

- Solutions for data integration, validation, state and federal reporting, and data privacy
- Statewide implementations across the US and Australia, serving over 3 million students
- Cloud-native technology provides scalable, real-time integration
- Standards-agnostic approach: “meet them where they are”

Why SIF

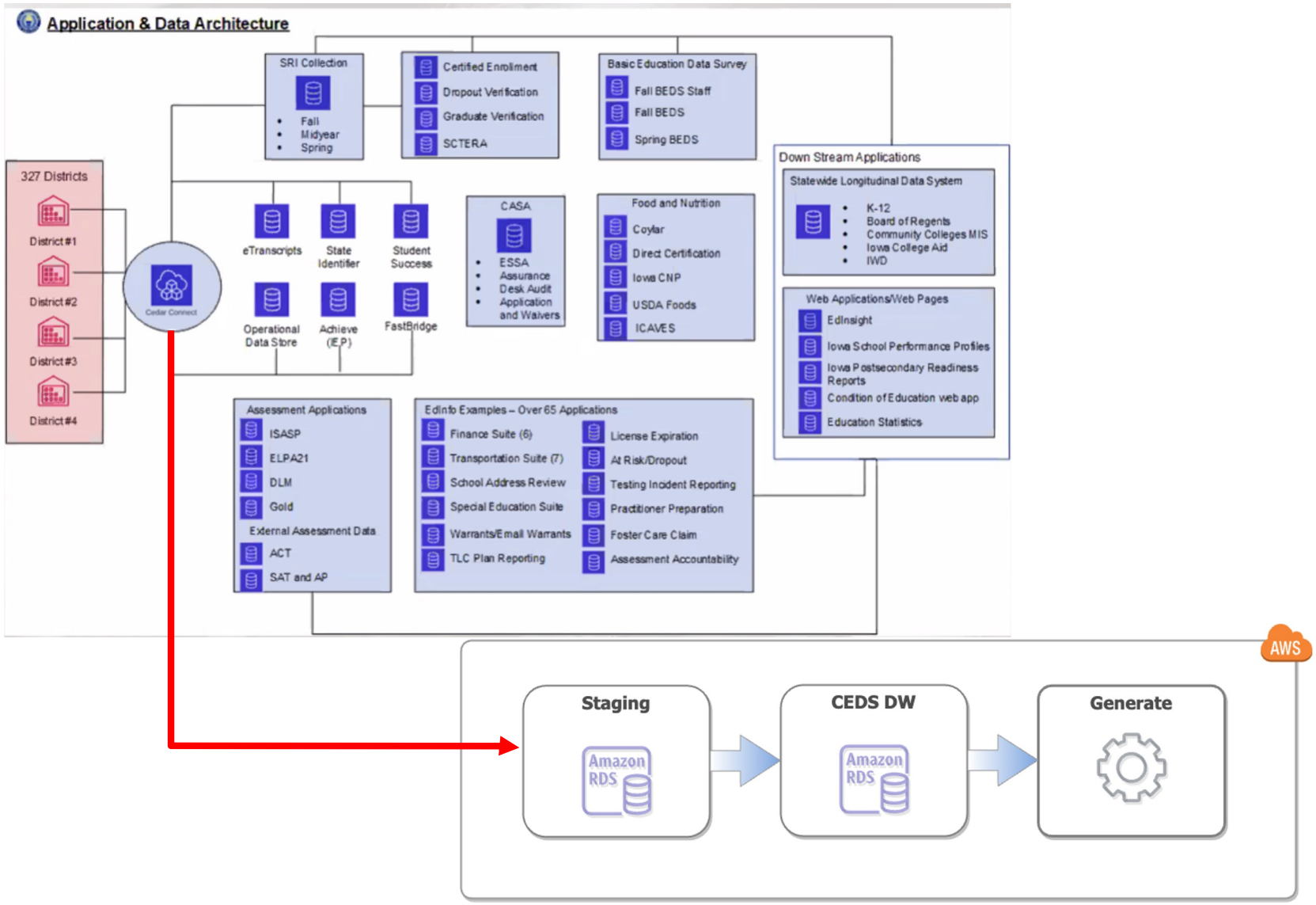
- Longstanding, effective infrastructure in place based on SIF standard
- CEDS-aligned with common vocabulary
- Modern REST API
- Supports cloud-native technology
- Performance test demonstrated ability to process 350m records / hour

Project Goals

- Leverage existing infrastructure to create a seamless Generate implementation
- Apply SIF → CEDS mapping in a real-world environment
- Identify and eliminate barriers to future implementations in the community
- Realize success in a short timeline

Steps to Success

- Map Iowa SIF Profile to Generate reports
- Identify best proof of concept candidate reports
- Deploy CEDS DW and Generate in the cloud (AWS)
- Connect data and create candidate reports
- Compare results for calibration


Application & Data Architecture
SRI Collection
Fall
Midyear
Spring
Certified Enrollment
Dropout Verification
Graduate Verification
SCTERA
Basic Education Data Survey
Fall BEDS Staff
Fall BEDS
Spring BEDS
327 Districts
District #1
District #2
District #3
District #4
Cedar Connect
eTranscripts
State Identifier
Student Success
Operational Data Store
Achieve (IEP)
FastBridge
CASA
ESSA
Assurance
Desk Audit
Application and Waivers
Food and Nutrition
Coylar
Direct Certification
Iowa CNP
USDA Foods
ICAVES
Down Stream Applications
Statewide Longitudinal Data System
K-12
Board of Regents
Community Colleges MIS
Iowa College Aid
IWD
Web Applications/Web Pages
EdInsight
Iowa School Performance Profiles
Iowa Postsecondary Readiness Reports
Condition of Education web app
Education Statistics
Assessment Applications
ISASP
ELPA21
DLM
Gold
External Assessment Data
ACT
SAT and AP
EdInfo Examples – Over 65 Applications
Finance Suite (6)
Transportation Suite (7)
School Address Review
Special Education Suite
Warrants/Email Warrants
TLC Plan Reporting
License Expiration
At Risk/Dropout
Testing Incident Reporting
Practitioner Preparation
Foster Care Claim
Assessment Accountability
AWS
Staging
Amazon RDS
CEDS DW
Amazon RDS
Generate

SIF → Generate

- Common vocabulary simplifies process
- SIF *profiles* tend to be focused on state reporting needs
- Five report candidates identified based on:
  - Available data
  - Scope of work given short timeline
  - Breadth of examples for PoC
  - Likely interest level

Reports

- 033 Free Reduced Lunch
- 039 Grades Offered
- 052 Membership
- 086 Students Involved with Firearms
- 195 Chronic Absenteeism

Generate Cloud Deployment

- Goal: Simplify implementation by extending current AWS deployment
- Hurdles:
  - Tightly bound to Active Directory / requires multiple environments
  - Documentation geared towards on prem
- Successes:
  - Built lightweight authentication module
  - Troubleshot documentation and modified to fit AWS deployment scenario

Report Creation

- Mapped all 5 reports from SIF profile to CEDS staging tables
- Populated staging and CEDS DW
- Successfully created all 5 reports via Generate
- Calibration in progress

Next Steps

- Share Generate Authentication Module code back with Open Source Community
- White paper coming on Generate deployment on AWS
- Review as a team to discuss implications for Generate implementation

Thanks!

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