Alternate text: Leveraging a statewide SIF infrastructure for seamless Generate reporting, followed by the logos for CIID, Iowa Department of Education, and Cedar Labs

Introductions

- Elizabeth Brunet, AEM
- Johnny Cunningham, AEM
- Jay Pennington, Iowa DE
- Roger Peterson, Iowa DE
- Ben Silberglitt, Cedar Labs

Alternate text: Introductions.

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📌 **Agenda**

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

Alternate text: Agenda

- Why Generate
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1 Why Generate

Alternate text: Why Generate

Alternate text: Architecture diagram showing the SEA Data System and its databases connecting to the Generate reporting tool, which uses the CEDS data standard

Alternate text: 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, and West Virginia. 5 additional states are implementing or have implemented: Nevada, Kentucky, Minnesota, Bureau of Indian Education, Commonwealth Northern Mariana Islands

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

Image showing United States with people staying connected to each other. Another image is the logo of the Open Source Community.

2 — **Iowa's EdFacts journey**

Where we've been and where we are going

Alternate text: 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

Alternate text: Infrastructure overview

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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

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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

Alternate text: Opting for Generate

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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

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Alternate text: Project Goals

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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

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③ A4L SIF Unity → Generate pilot

Alternate text: A4L SIF Unity → Generate pilot
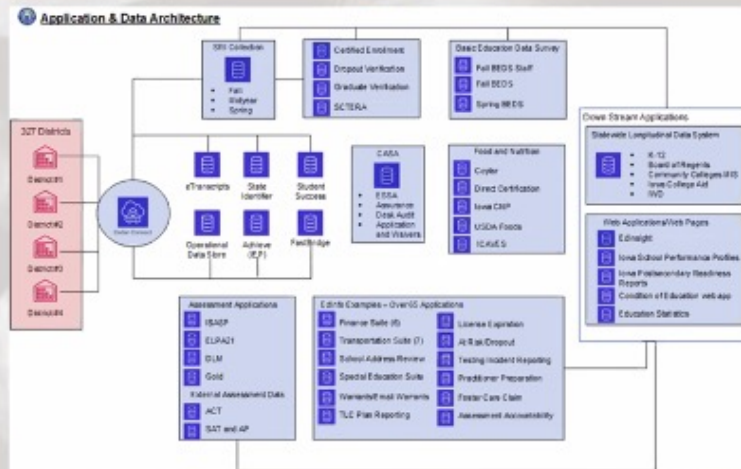
Alternate text: Architecture diagram titled "SEA Data Collections and Constant Change", showing Iowa's 327 school districts sending data to Cedar Connect, which then provides data to many other internal Iowa systems, state data collection, and downstream applications.

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"

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Alternate text: About Cedar Labs
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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

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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

Alternate text: Project Goals

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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

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Alternate text: The same architecture diagram (titled "SEA Data Collections and Constant Change") shown earlier, showing Iowa's 327 school districts sending data to Cedar Connect, which then provides data to many other internal Iowa systems, state data collection, and downstream applications. In this diagram, Cedar Connect also sends data to a Staging table, which then provides data to the CEDS Data Warehouse, which provides data to Generate. The Staging, CEDS DW, and Generate are all on the AWS cloud.

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

Alternate text: SIF → Generate

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Reports

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

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Alternate text: Reports

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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

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Alternate text: Generate Cloud Deployment

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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

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Alternate text: 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

Alternate text: 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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Alternate text: Thanks!

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Logos for CIID, Iowa Department of Education, and Cedar Labs