

Data Interoperability is only the Beginning

SIF[®] Association 2014 Annual Meeting
February 18, 2014

Presented by:
Don Gauger, CEO, ProActive School, Inc.
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Data Interoperability is only the Beginning

Agenda

- Background
- Presentation Objective
- Data Sharing
- Data Management
 - Data Sources
 - Data Quality
 - Data Consolidation
 - Data Use
- Summary

Background

- Lessons learned from DC PCSB
- Data Interoperability Scope
 - 35 LEAs using SIF 2.x Agents
 - 68 LEAs using file uploads
 - Automated daily file uploads to State Agency Applications
 - Multiple synchronized data stores

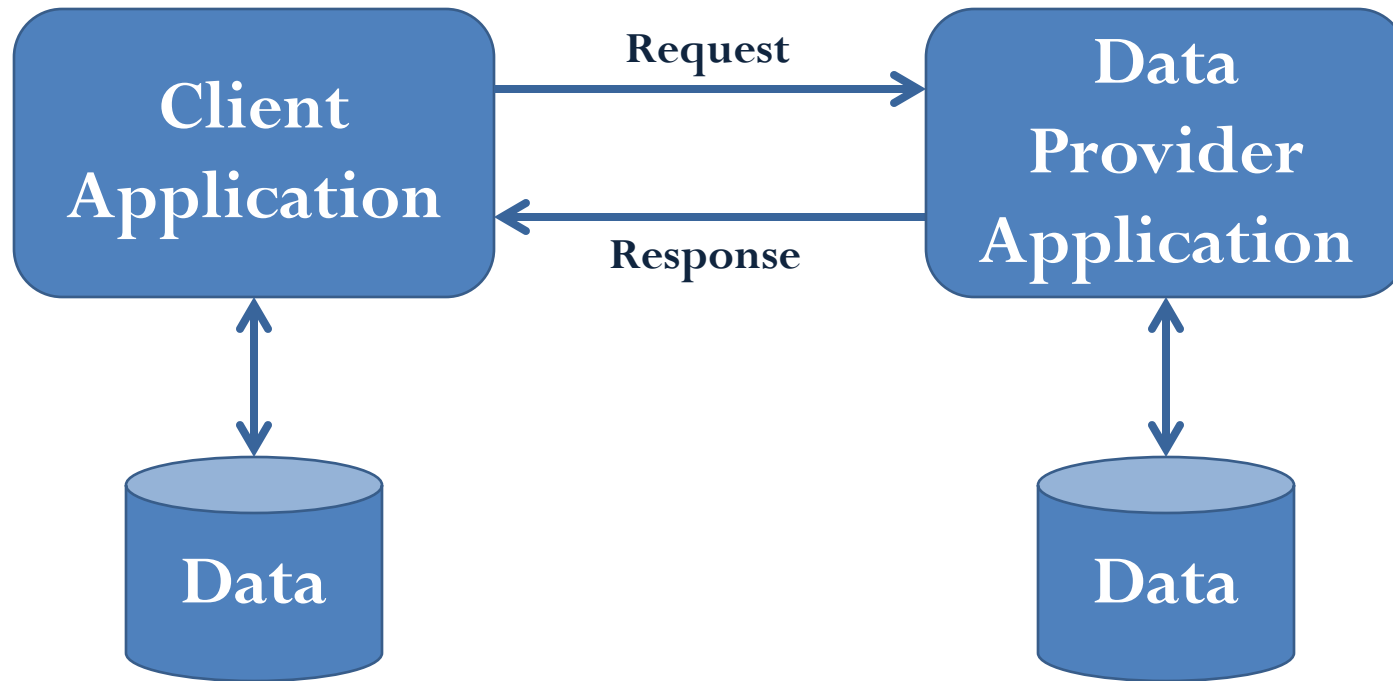
Presentation Objective

Explore the requirements and processes needed by education enterprises to successfully deliver on-going Data Management for data interoperability implementations.

Where “successfully” is defined as having:

- *Compliance to business demands and policies*
- *Efficient use of resources*
- *Integrated, manageable processes*
- *Control and Accountability over data source providers*
- *Data Quality that is measured and optimized*
- *Data issues identified, timely corrected and have prioritization*

Basic Data Sharing



CONCEPTUALLY A SIMPLE PROCESS!!!

Data Sharing Road Map



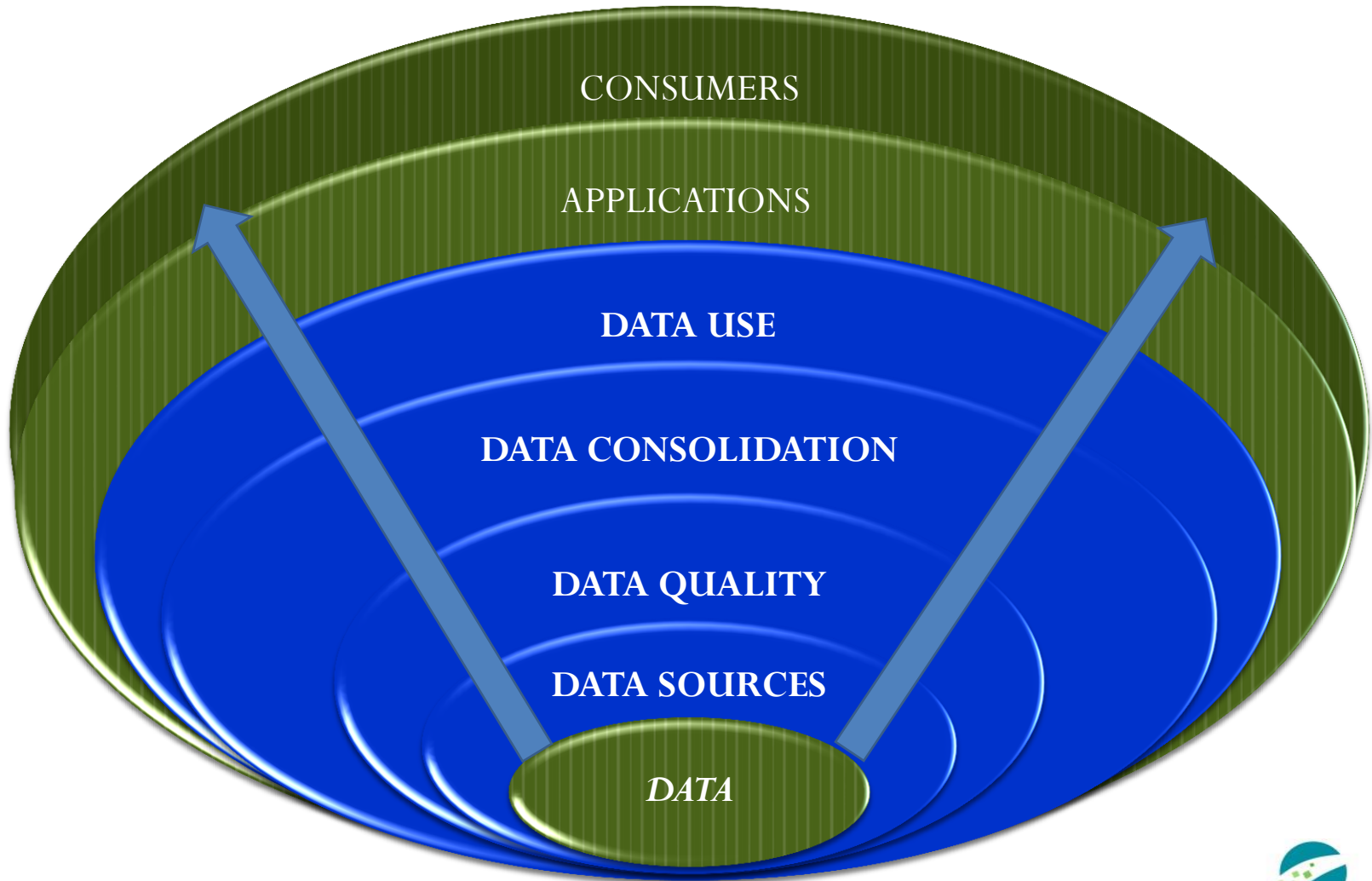
- Data Model
- Transport Infrastructure
- Data Exchange
- Agent Certification (Vendor)

- Encryption
- Authentication
- Authorization

- Sources
- Quality
- Consolidation
- Use

Data Management Foundation

Building a successful Data Management foundation...



Source Management - Requirements

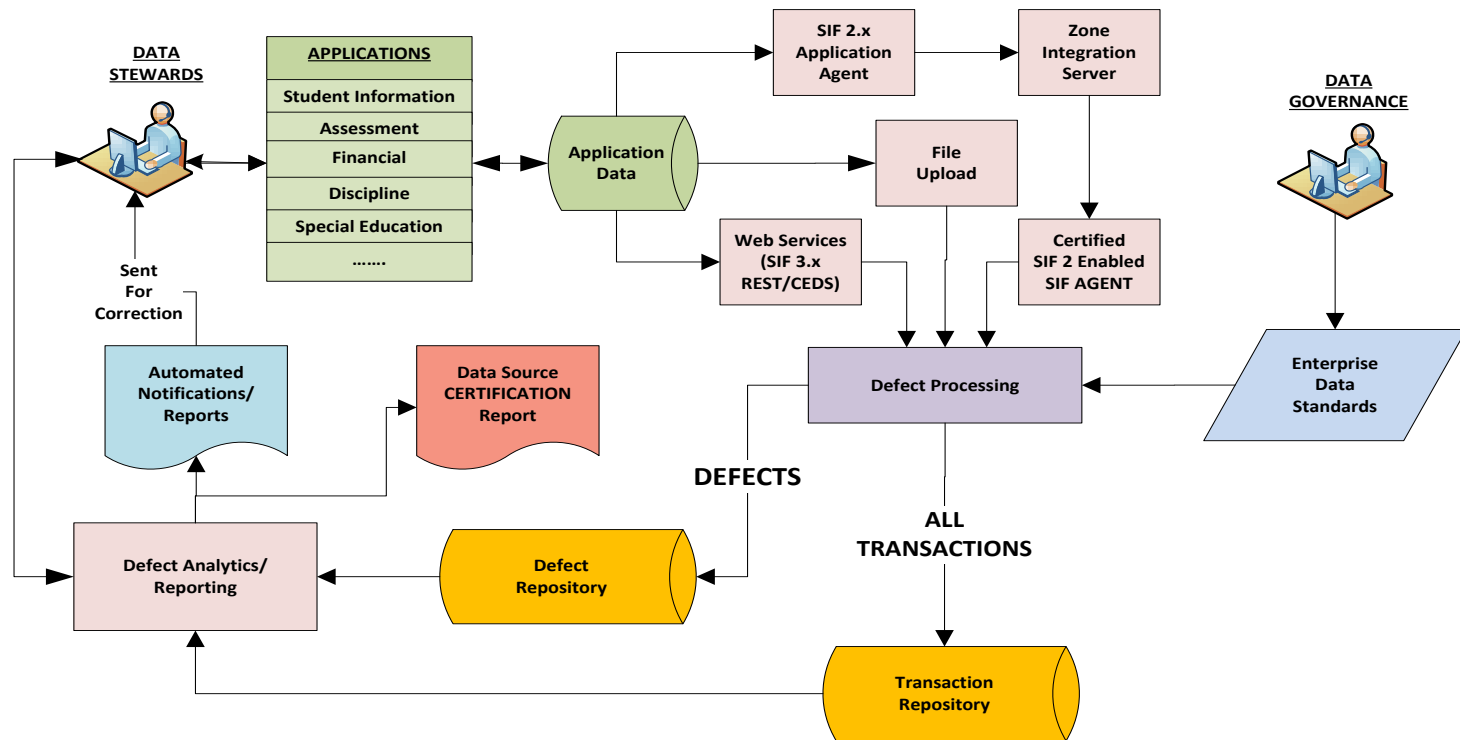
- ☐ Enterprise Data Standards
- ☐ Certification
- ☐ Version Management
- ☐ Communication
- ☐ Correction/ Analysis

Scenario:

A data source is sending data for data consolidation and has not been certified for its fitness.

Source Management – Process

Assure that all Data Sources comply with the Enterprise Data Standards before being placed into production...



Data Quality Management - Requirements

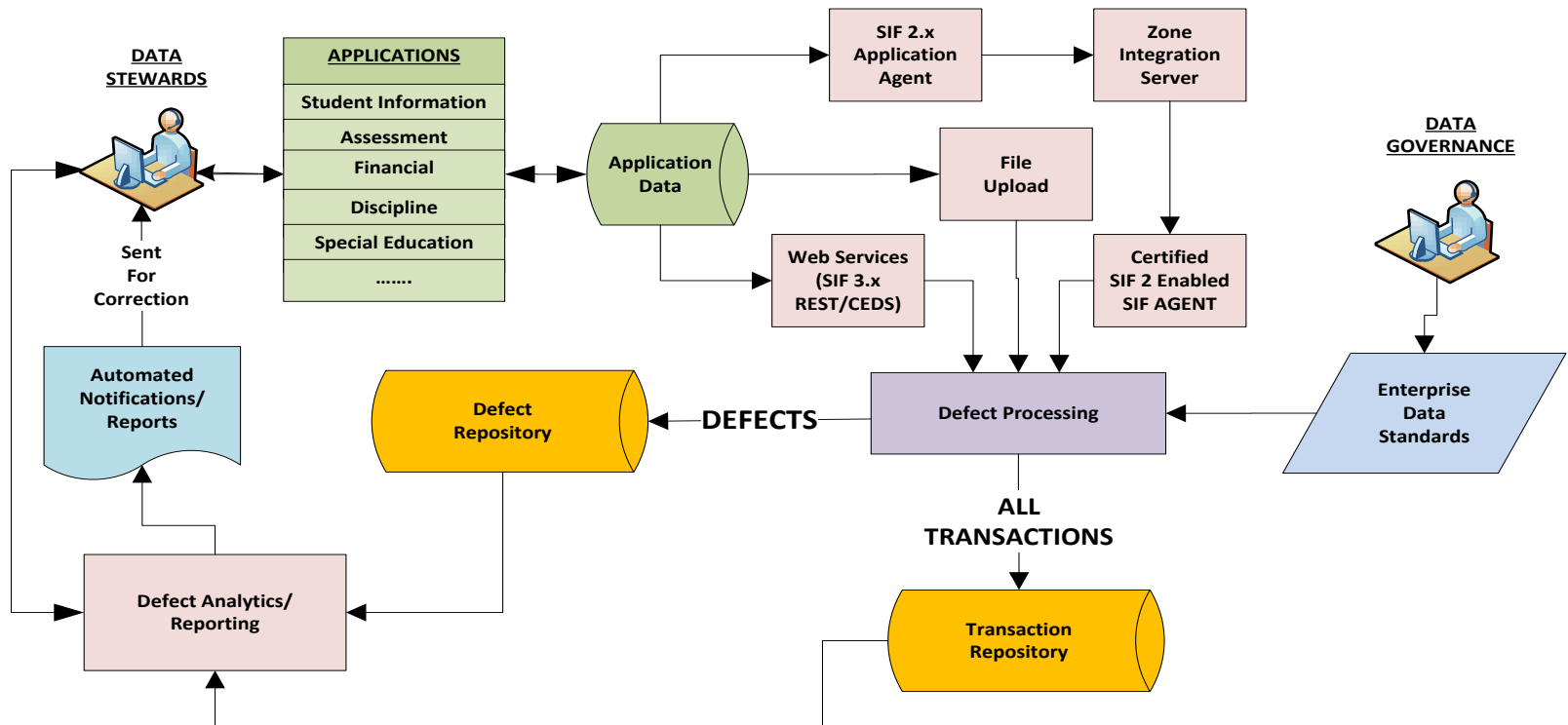
- ❑ Enterprise Data Standards
- ❑ Validation
 - Data Element Contents
 - Intra-Object Data Relationships
 - Inter-Object Data Relationships
 - Business Rules
- ❑ Quality Performance Metrics
- ❑ Communication
- ❑ Analytics/Reporting

Scenarios:

- *Exclusion of selected NCES metadata from use.*

Data Quality Management – Process

“Passive” real-time monitoring of “On-the-Wire” transactions for compliance to Enterprise Data Standards...



Data Consolidation Management - Requirements

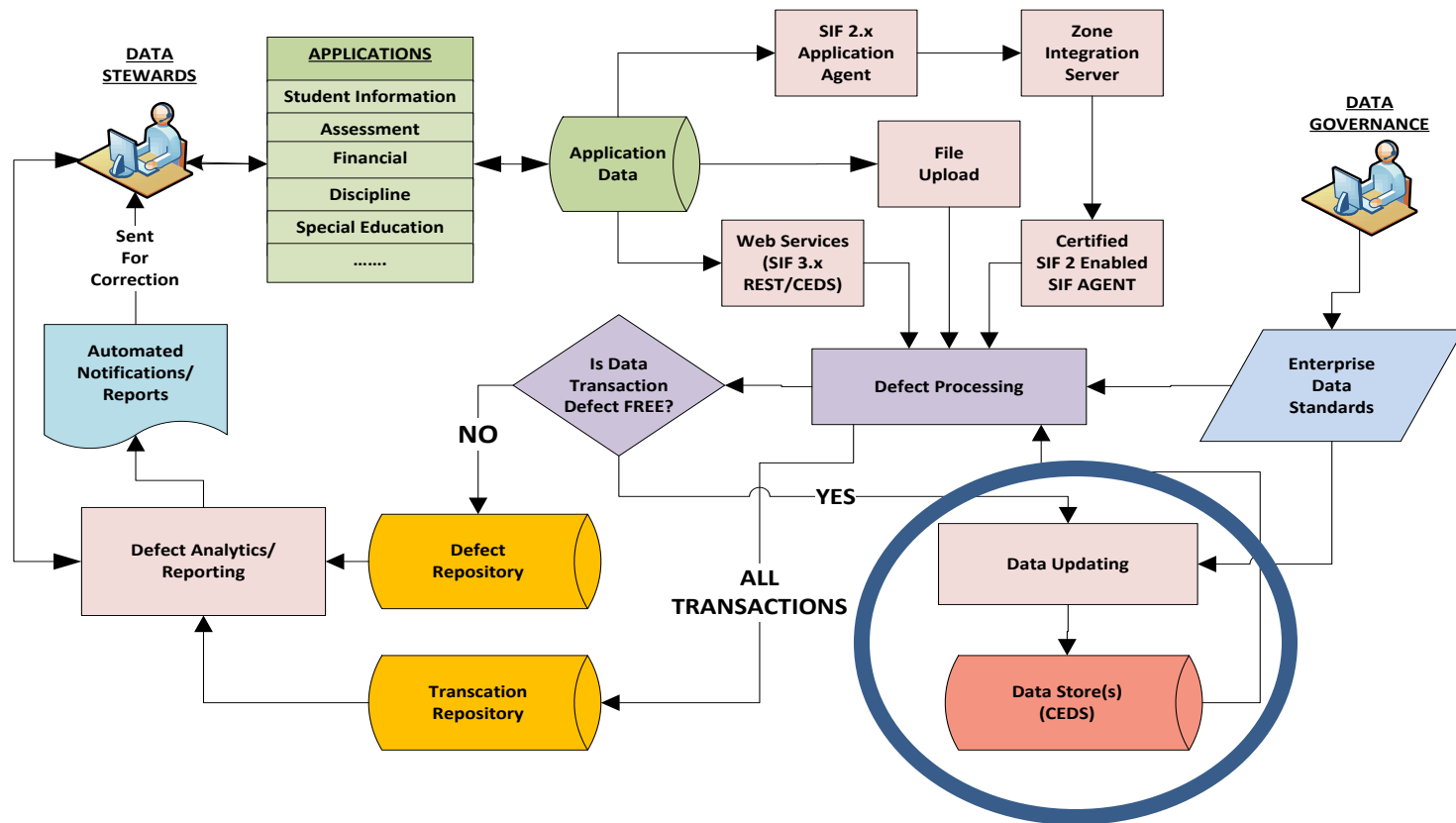
- ☐ Enterprise Data Standards
- ☐ Data Updating
- ☐ Data Mapping
- ☐ Deposition rules

Scenario:

Source level data standards are different from the enterprise data standards.

Data Consolidation Management – Process

“Active” updating of Data Store(s) with quality data per consolidation standards...



Data Use Management - Requirements

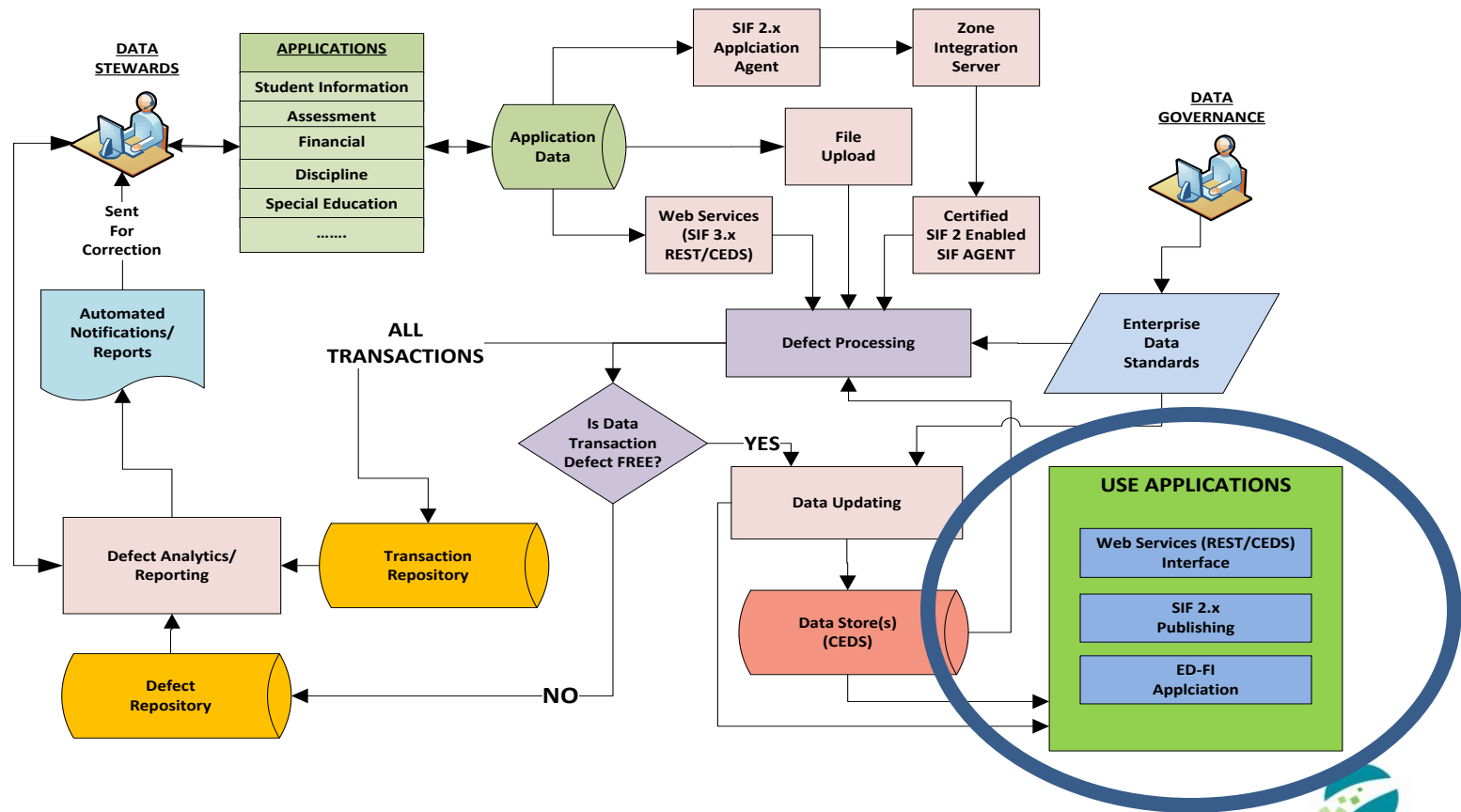
- ❑ Enterprise Data Standards
- ❑ Application Access (Middleware)
 - Web Services (REST / CEDS)
 - SIF 2.x Publishing
 - Ed-Fi
- ❑ Use Policy Enforcement
 - FERPA
 - De-Identification
 - Site Level Use Policies
- ❑ Business Impact Management

Scenario:

Allocating significant resources to correct Student phone numbers while 70% of the ELL values are not coming through and ELL is tied to funding!

Data Use Management – Process

Data Use Management have “**Middleware**” integration capabilities for Web Services (REST/CEDS), SIF 2.x publishing, Web Services and other applications such as ED-FI...



Requirements Summary

- ✓ Closed Loop Correction Process
- ✓ Integrated, Customizable Enterprise Data Standards
- ✓ Passive “Monitoring”
- ✓ Active “Updating”
- ✓ Support SIF® Agents, Web Services and File Uploads
- ✓ Data Sources Certification
- ✓ Data Validation
- ✓ Data Mapping
- ✓ Version Management
- ✓ Pre-Loaded Data Standards: SIF®, NCES, CEDS, etc.
- ✓ Certified SIF® 2 Enabled Application
- ✓ Data Use Policy Support
- ✓ Based on Source XML Transactions
- ✓ Multiple Data Stores Support
- ✓ Data Deposition Rules
- ✓ Data Quality Analytics/Reporting
- ✓ Business Impact Support
- ✓ Managed Application Data Access
- ✓ Integrated Notification
- ✓ Performance Metrics

For more information:

- Visit our conference table
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