Summary of results from Technical Implementation Strategy (TIS)

Summary:

Technical Implementation Strategy (TIS) was commissioned to offer recommendations on how to take Colorado from where we are now, i.e., districts with disparate technology, challenging reporting, ever-changing requirements, tightening budgets, poor quality and out of date data, to an environment where available, high quality data drives educational decisions across Colorado. CDE solicited and selected a local company Celero Partners Corp. for the work. Celero conducted a survey of districts and a series of follow-up directed interviews with districts and CDE, and brought forward their own expertise in working with other states. This document provides an overview of the results.

Sampling of Survey Statistics:
- 39 districts responded to survey, representing 449,660 of Colorado's 843,316 students
- 8 SIS's are in use across the respondents' districts
- 35 district SIS's are supported centrally by the districts, while 1 district utilizes a decentralized system with support handled at the school level
- 23 districts host locally, the other 16 are hosted off site
- Survey statistics also exist about Special Education, Finance, Human Resource, and Assessment systems. For details on all results, please go to: http://cde.celerocorp.com/Results.aspx

Highlights of Results:
- Communications - Recommends implementing tactical working data group to assist in clarifying communications between the state and districts.
- Develop rulebook to clarify directions on how to report data and when.
- End state – Suggests that our eventual end state is a transactional pull model, at pre-determined times of the year. First intermediate goal will include different end states for different districts, then will see additional intermediate steps to reach desired end state
- Data Consolidation – Recommends we consolidate same/similar data to reduce repetitive requests
- Student Information System (SIS) – Suggests our end state includes a state sponsored SIS, to reduce the numbers of systems in use and focus our vendors on Colorado-oriented reporting tools
- Best Practices – Provides information from other states so we can share lessons learned
- Technical Strategy – Recommends that we equalize technology functions across diverse districts by providing web based front ends for data submission.   Develop and install data pumps in each district's source database, to send data directly to targeted CDE environment built to accept the data. There are many steps contained within this recommendation, and it pre-supposes that a common SIS is in place (or fewer SIS's are in use) and data capture has been modified to conform in format and quality, data processes/procedures are established, required data is consolidated, a schedule for pulling and/or pushing data is in place, and districts are on board and accepting of this change.

CDE's Next Steps:
- Investigate further and potentially implement a state sponsored SIS
- Implement new ADE system to accommodate current goals, incorporating TIS results into new system requirements
- Utilize best practices from other states

➢ Develop enhanced communication strategies between CDE and districts
➢ Develop organization change management program to ease the cultural change required
➢ Design new underlying architecture to share data between CDE and educational institutions
➢ Enhance current SLDS governance structure to include tactical data working group
➢ Continue with ongoing SLDS projects

SIS Results from Survey
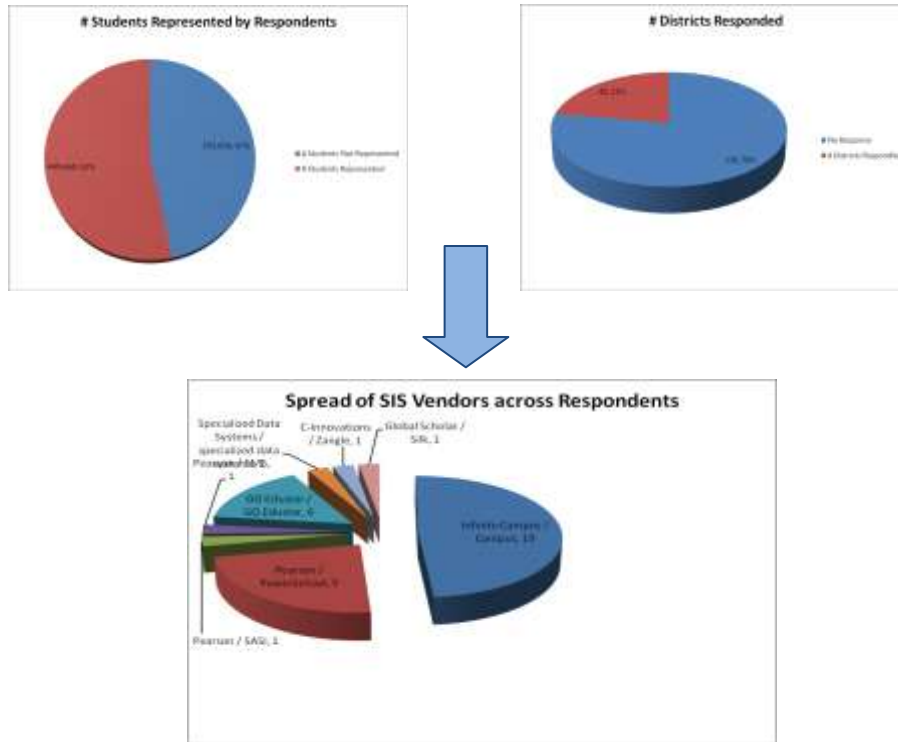
Other ongoing projects:
- Organizational Change Management
- Automated Data Exchange system upgrade/replacement
- Teacher Student Data Link/Educator ID
- State Equalization System Replacement
- Identify Management Implementation
- Enterprise Data Management Strategy
- SchoolView.org data and service extensions
- Colorado Unique Identifier Implementation

Additional information may be found at the SLDS program website at
http://www.cde.state.co.us/slds/index.htm

One of the Study's Key Recommendations:

Tactical Data Governance Work Group

Currently communication is scattered, incomplete, and decentralized, creating a dysfunctional relationship between the state and the districts. Simple steps can be taken immediately to eliminate a majority of the challenges by defining, documenting and coordinating a seamless and complete line of commutation between the state and districts.

Best Practices dictate the need for centralized, consistent communication between the SEA and the LEA. Creating a working level data committee including collection and reporting requirements and holding annual data user conferences to communicate changes and identify district challenges and training requirements will significantly reduce challenges prior to them becoming problematic.

Benefit: Coordinated Communication and documented processes eliminate confusion and miscommunication of critical changes or additional requests from the state and provides a point of contact for districts to retrieve information accurately and consistently

Risk: Structuring and organizing the working group and aligning everyone to a single-point-of-contact will pose cultural challenges CDE and at the district level. Maintaining centralized control at CDE and coordinating control in many districts from multiple staff to one can pose significant trust challenges. Full and proper communication between CDE and districts will build with trust and coordination that will be required to implement this recommendation.

Specific tasks should include:

1. Creating a centralized Tactical Data Governance Working Group within the IT department to coordinate data submission communications between CDE and the districts.
2. Develop a Tactical Working Group Data Governance Plan detailing the policies, procedures, organization, and roles and responsibilities for the Tactical Working Group.
3. Create an ADE user manual that details the timing, requirements, and specifications of each of the current data collections.
4. Post ADE User's Manual on the CDE Website, and has the Tactical Working Group update as required.
5. Identify the single point of contact at each district to be that district's representative on the Tactical Data Governance Working Group.
6. Develop a communication plan that keeps each member of the Working Group informed and engaged.
7. Hold annual data conferences to: 1) Train data users on the proper use of submitted data; 2) gather requirements for recommended changes; 3) detail near term changes to the data submission process; and 4) communicate upcoming changes that will impact districts; and 5) coordinate SIS User Group discussions for districts using the same SIS.

Categories of Colorado Districts as they are configured today (per Celero):

1. **_Districts that have no source systems_** – these are often very rural, very small districts with no, or very limited, technological capabilities. They either enter their data into an excel spreadsheet

and then export into the proper format, or they manually create the data file format in a text editor, and then submit their data through ADE.

2. ***Districts that have some, but not all source systems*** – these are districts can extract data from their source system, but then must augment the extract file with the data that is not in their source systems to complete their required data file. For data not in source systems, the required data files must be manually created see above.   We estimate that the majority of the districts that are not designated as Category 1 Districts will fit into this category. Generally, we have found that up to only 75% of a state's required data is housed in a formal "source system". The remaining has to be collected manually and submitted.

3. ***Districts with source systems, but no capacity to support source systems*** – these are districts that have invested in technology that have the requisite source systems, but do not have the full capacity to be able to adequately support the CDE data collection process.

4. ***Districts with source systems, and the capacity and capability to support source systems*** – these are the few bigger districts that have both the source systems and technical capabilities and capacity to support the CDE data collection process.

5. ***Districts that utilize BOCEs for source systems and support*** – these are the districts that have not invested in their individual support systems and/or technical support, but have elected to utilize the available BOCE support to meet CDE data collection requirements. There are two primary varieties of this support. The first is where the BOCE supplies the source system that the district uses and the technical capacity to support CDE data collection. The second has the district supplying the source systems, but the BOCE providing the technical capability and capacity to support CDE data collection.

Celero also suggests five distinct technical road maps to take each category of districts to a more streamlined and consistent technology state, for much greater "Capture" of data for CDE.