



Government Data Advisory Board (GDAB) Annual Report, January 2010

1/14/2010

STATE OF COLORADO

GOVERNOR'S OFFICE OF INFORMATION TECHNOLOGY

GOVERNMENT DATA ADVISORY BOARD

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Bill Ritter, Jr.
Governor

Michael Locatis
State Chief Information Officer

January 14, 2010

Michael Locatis
State Chief Information Officer
Governor's Office of Information Technology
601 East 18th Avenue, Suite 250
Denver, Colorado 80203

Re: Government Data Advisory Board Annual Report

Dear Mr. Locatis,

I am pleased to submit the Government Data Advisory Board's first annual report, as required by Colorado Revised Statute 24-27.5-703.

The Government Data Advisory Board was seated this past August, and has been actively developing its strategy as well as supporting state grant applications such as the State Longitudinal Data Systems (SLDS) and Race to the Top programs under the American Recovery and Reinvestment Act (ARRA).

We look forward to continuing our work in 2010, and supporting the state's efforts in cross-agency data sharing and enterprise data management.

Please contact me at 303-764-7710 if you have any questions or comments.

Sincerely,

A handwritten signature in blue ink that reads "Micheline Casey".

Micheline Casey
Chair, Government Data Advisory Board



Office of Information Technology

Increasing the effectiveness of government through information technology

Executive Summary

The Government Data Advisory Board (“GDAB”) was created through HB 09-1285. Its primary mission is to provide recommendations and advise the State Chief Information Officer regarding the ongoing development, maintenance, and implementation of the interdepartmental data protocol.

Per HB 09-1285, the GDAB has the following duties:

- To advise the chief information officer concerning best practices in sharing and protecting data in state government
- To recommend to the Chief Information Officer rules and procedures that a state agency shall follow in requesting, or responding to a request for, data from another state agency, including but not limited to strategies for enforcing said rules
- To advise the chief information officer concerning rules and procedures for responding to data requests submitted by an entity outside of state government
- To recommend to the chief information officer a schedule of fees that the office may charge to state agencies to supervise and administer interdepartmental and external data requests, that a state agency may charge another state agency in responding to an interdepartmental data request, and that a state agency may charge to respond to a data request submitted by an entity outside of state government in recommending the fee schedule, the advisory board shall ensure that the fee amounts do not exceed the direct and indirect costs incurred by the office or by the state agency that is responding to a data request.

The Board is tasked with presenting an Annual Report of its activities to the State Chief Information Officer (“State CIO”) by January 15th of each calendar year. The State CIO then updates the Governor’s Office and Legislature by March 1st each calendar year.

The Board held its first meeting on August 21, 2009. The agenda included a HB 09-1285 Background and Overview, history of data governance in Colorado, immediate opportunities in Race to the Top and SDLS grant applications, issues and challenges of the current environment and a review of the HB 08-1364 council recommendations and identified risks. Since then, the GDAB has met monthly during which the strategic planning progress was initiated. The Board has organized itself into three working subcommittees, in addition to the Education Data Subcommittee that is specifically established in statute.

The Board identified 18 areas of strategic planning for the 2010 calendar year that when taken together will help meet the deliverables legislated by HB 09-1285. These can be found beginning on page 13.

Recommendations to the State Chief Information Officer

The Board has met only a few times, but makes the following recommendations to the State CIO for immediate implementation:

1. OIT should inventory all state data systems and develop an understanding of where the state’s data is located and used.

The first step in understanding the various types of data collected and used by various state agencies is to inventory and define what data is collected by the state and where it resides. OIT should organize and coordinate this inventory process among all state agencies. This inventory information about the data should then be made available to all agencies to facilitate data sharing processes and strategically to identify opportunities for data re-use and consolidation.

2. OIT should develop a data stewardship and ownership policy.

Data Stewardship means the formal accountability for business responsibilities ensuring effective control and use of data assets. A data steward is a business leader or recognized subject matter expert designed as accountable for data stewardship responsibilities. Data stewards manage state data assets on behalf of the state and their agency. They have the responsibility for setting business policies, standards, architecture, procedures, data names, definition, data quality requirements and business rules.

This recommendation includes formalizing and organizing the stewardship activities and processes statewide based on information subject areas. It also includes creating a common baseline of information such as a statewide foundation for data sharing, information discovery and future architectures.

Education Subcommittee Recommendations to the State Chief Information Officer

The Education Subcommittee is currently working to develop recommendations in the following areas:

- Protocols and procedures for sharing education data
- Information technology and reporting formats for education data
- Data element standards
- Electronic standards
- Design and development of a statewide comprehensive P-20 data system

The Education Subcommittee will also update its recommendations to the State CIO based upon the deliverables in the State Longitudinal Data Systems and Race to the Top grants, if awarded.

We are pleased to deliver our first report as a Board to the State CIO. As the Board continues to dive deeper into its work, we will develop recommendations in the strategic areas identified in this report and continue to research and support state data sharing and data management opportunities.

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Background and Overview

The Colorado Legislature approached the issue of enterprise data sharing with the passage of House Bills 08-1364 and 09-1285. HB 08-1364 directed the Governor's Office of Information Technology (OIT) to convene a Data Protocol Development Council ("Council") to assist in designing and implementing an interdepartmental data protocol. The goals of the cross-departmental data protocol are to facilitate information sharing across agencies, and to assist in formulating and determining the effectiveness of state policies.

The mission of the Council was to provide guidance, policies and procedures for implementing a data sharing architecture across the state enterprise to achieve the stated goals and objectives of HB-1364. HB 08-1364 was driven by the need to:

- analyze and determine the effectiveness of state policies and resources by examining an issue across multiple state agencies;
- formulate informed strategic plans for the application and use of state resources based on strong, accurate, reliable, multi-dimensional data;
- and, to enable more efficient collecting, storing, manipulating, sharing, retrieving, and releasing of data across state agencies.

The Council made a number of recommendations in its final report to the State CIO and Legislature in February 2009. Number one among these recommendations was the establishment of a formal governing board to advise on enterprise policies, directions and priorities for data governance and management across state government agencies. This formal data governance process will describe the “rules of engagement” by which all State Executive Branch agencies will follow regarding data sharing and data management.

Based on the Council's recommendation, the Legislature introduced and passed HB 09-1285, which created and defined the Government Data Advisory Board (“Board”). The Board was specifically established to advise the State CIO on activities and policies necessary to developing the interdepartmental data protocol created in HB 08-1364 and to continue the work of the Council.

Mission

The Board's mission is to provide guidance and recommendations on how the state should govern and manage data and data management systems to improve the efficiency and effectiveness of state government, citizen service delivery and policy-making.

Vision

The vision for **enterprise data sharing** is to foster collaboration, innovation and agility in delivering government services to the citizens of Colorado through the seamless, efficient, strategic exchange of core data sets resulting in increased effectiveness of government operations.

“Enterprise” is defined as the State of Colorado Executive Branch Agencies.

“Core data sets” are defined as one or more data elements strategic and/or critical to State agency operational or programmatic needs.

Board Roles

The Board has two primary roles. The first is to assist the State CIO and Chief Data Officer (“CDO”) in determining the state’s data strategy, policies, standards, architecture and assisting with issue management. The Board’s second role is as advocate: both from their communities to OIT regarding stakeholder needs and concerns; and, to their community as key communicators regarding the state’s progress, concerns and challenges.

Board Alignment with OIT Operations

The GDAB operates as one part of a well-organized process that includes the Office of Enterprise Architecture and the Colorado Enterprise Architecture Framework. As part of Colorado’s strategic plan, OIT has adopted a set of guiding principles:

1. Security and Privacy are core missions.
2. We will engage the State’s highly skilled and dedicated workforce.
3. Information is one of our most valuable assets and should be shared.
4. Businesses will maintain data sovereignty.
5. Our technology should be agile enough to meet the changing needs of agencies and citizens.
6. We will strive to constantly improve cost effectiveness.

As the slide below illustrates, the GDAB advises the State CIO on data sharing master data management. The Board is chaired by the state’s CDO, reports to the Enterprise Architect. The Board, OIT and the CDO are aligned as shown in the following figure:

- Advise on compliance, privacy and security data requirements;
- Advise on internal and external data policies and procedures;
- Advise on financial and budgetary components required for implementation; and,
- Specifically recommend education data sharing and management strategies.

Finally, the Board will develop recommendations with time frames and priorities for developing and implementing the cross-departmental data protocol. *Procurement, development, and/or implementation of Board recommendations are outside the Board's scope of work.*

Goals

The goal of the cross-departmental data protocol is to facilitate information sharing across agencies and assist in formulating and determining the effectiveness of state policies. The goals of the Board in its advisory capacity to the State CIO regarding implementation of the protocol are as follows:

Goal 1: Develop recommendations for enterprise data sharing, integration and consolidation.

Goal 2: Recommend policies and procedures for managing data and resolving conflicts.

Goal 3: Identify areas to reduce operational costs and complexity.

Goal 4: Provide recommendations to improve data privacy, regulatory compliance and access management.

Goal 5: Identify change management opportunities (service delivery, process improvement, organizational re-alignment).

Program Deliverables

The key deliverables for this program include:

| Deliverable | Description |
|--------------------------|---|
| Annual priority document | The Board will develop an annual priority document that will target the work the Board will focus on during its current year. Years run from August to July. These documents may be modified and amended via Board procedures as unforeseen or urgent needs are identified by the |

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| | Board or stakeholders. |
| Policy documents | Policy documents will be written by the Board for each identified enterprise policy need. These documents will be delivered to the Chief Data Officer in the OIT. |
| Education Data Subcommittee report due to Board | These reports are due to the Board twice a year, per legislation, on the first December and the first of June. The first report is due to the Board on December 1, 2009. |
| Board report due to State CIO | This report is due annually, per legislation, by January 15. The first report is due on January 15, 2010. |
| State CIO report due to Governor & Legislature | This report is due annually, per legislation, by March 1. The first report is due on February 26, 2010. |

Issues

The following issues will be considered by the Board as its work progresses:

- Cultural and change management issues within state agencies.
- Determine a funding source to implement an enterprise program and system infrastructure to support the cross-departmental data protocol.
- Meet compliance standards set by federal and state statute and regulation.
- Ensure that recommended statutory or regulatory changes can be met in a timely manner.
- Address privacy and security concerns of citizens.

Sponsors and Stakeholders

The following stakeholders have been identified as having a key interest in the program:

| Stakeholder/Group | Stakeholder Interest |
|--|---|
| Executive Sponsorship * Mike Locatis - CIO * Leah Lewis – State Enterprise Architect | OIT is responsible for implementing and delivering the capabilities envisioned with the cross-departmental data protocol and enterprise data sharing initiatives. |

| | |
|---|--|
| <p>* Seth Kulakow - CISO</p> <p>* Kelley Eich – CTO</p> <p>* Jim Lynn – ASD</p> <p>* Kim Heldman – CEAD</p> <p>* Todd Olson - CFO</p> | |
| <p>Governor’s Office</p> <p>* Policy advisors as identified</p> | <p>The Governor’s Office drafted HB 08-1364, the initial legislation, in order to help achieve its objectives on a number of policy fronts, including education improvement efforts. The legislation and the work of the Board are a high priority to the Governor’s Office.</p> |
| <p>Colorado Legislature</p> | <p>The Legislature has seen bi-partisan support for its legislation in challenging the state to develop more efficient and effective data management, exchange and delivery capabilities. It knows that the state can be much more effective in its ability to capture, share, store, and analyze data. It also wants the state to do a better job with regards to performance management and service delivery. The Legislature is keenly interested in how the Board’s work proceeds.</p> |
| <p>Colorado State Agencies</p> | <p>Almost all Colorado state agencies will be impacted by the work done by the Board. The impact areas will include policy, technology, financial, and business process. There will also be cultural changes that will be a natural outcome of the Board’s work, and it’s important to keep the Agencies as informed as possible during these processes.</p> |
| <p>Office of the Attorney General</p> | <p>The Office of the Attorney General has a keen interest in ensuring strong policies in the areas of privacy and compliance.</p> |
| <p>Secretary of State</p> | <p>The Office of the Secretary of State is partnered with other state agencies and aims to continue those relationship and others by cooperating in this effort to ensure any future data exchanges meet compatibility, security and privacy interests.</p> |
| <p>Local Government Agencies and Entities</p> | <p>The State is a strong business partner with local governments across the state for many government service program delivery efforts. These include education, health care, social service, environmental, public safety and other vertical markets. All of the major data sharing initiatives that currently fall under the purview of OIT and HB 08-1364 include both state and local agency efforts, and thus these local governments will be</p> |

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| | directly impacted by Board directives. Additionally, it is known that there are any number of other data sharing efforts underway at the local level that will ultimately be impacted by Board policy decisions. Efforts should be made to provide crisp, timely communication to local government agencies so that human and financial resources expended on these projects are spent in ways that are aligned with the state's efforts, so that these efforts don't have to be re-done in the future. |
| <p>State Agency Data Sharing Projects</p> <ul style="list-style-type: none"> * Colorado Children's Youth Information Sharing Project (CCYIS) * State Longitudinal Data System Project (SLDS) * State Traffic Records Advisory Committee (STRAC) * Others as identified | <p>These projects will be directly impacted by the Board's policy development efforts and technology architecture recommendations. These projects will also have urgent multi-agency, multi-governmental level needs that will need to be addressed in a timely manner by the Board so that these projects stay appropriately synchronized to state-level efforts.</p> |
| Nongovernmental and Research Organizations | These organizations will be impacted by the Board's infrastructure recommendations for access to state data. Additionally, these organizations will be impacted by the fee structure recommended by the Board for access to state data. |
| General Public | The general public includes, but is not limited to, citizens, businesses, organizations, and media who all have a stake in how the state manages the data entrusted to it. |

Program Communications

The following table summarizes the communications for the project:

| Role | Type | Frequency | Author |
|-------------------|--------------------|-----------|-------------|
| Executive Sponsor | Progress Report | Quarterly | Board Chair |
| | Risk/Issues Update | | |
| Governor's Office | Progress Report | Quarterly | Board Chair |

| | | | |
|--|--|-----------|-----------------|
| | Risk/Issues Update | | |
| Colorado Legislature | Annual Report | Annually | State CIO |
| | Progress Report | Quarterly | Board Chair |
| | Risk/Issues Update | | |
| Colorado State Agencies and Secretary of State | Progress Report | Quarterly | Board Chair |
| | Risk/Issues Update | | |
| Office of the Attorney General | Progress Report | Quarterly | Board Chair |
| Local Government Agencies and Entities | Progress Report | Bi-Annual | Board Chair |
| State Agency Data Sharing Projects | Progress Report | Quarterly | Board Chair |
| Nongovernmental and Research Organizations | Progress Report | Bi-Annual | Board Chair |
| General Public | Website updates – meeting minutes, meeting notices, Board publications | Monthly | Board Secretary |

Roles and Responsibilities

The Board responsibilities are outlined in the Board Procedures. This section outlines the roles and responsibilities of key stakeholders that the Board will need to fulfill its mission to the best of its ability.

| Role | Resource Name | Responsibility |
|------------------------------------|--|--|
| Executive Sponsorship | State CIO and members of OIT Executive Leadership Team | Champion the project amongst the Governor's Office, Cabinet members, and Legislature. Exploration and development of funding sources. High-level program objective development. Provide program-related staffing as needed, including project management, financial, administrative, and technical advisory support. |
| Governor's Office | Senior Policy Advisors | Champion the project amongst the Governor's Office, Cabinet members, and Legislature. Exploration and development of funding sources. High-level program objective development. |
| Colorado State Agencies | Executive Directors | Provide subject matter experts to the Board for subcommittee or policy work. Communicate with the Board on agency needs and priorities. Champion project throughout their agency. |
| Office of the Attorney General | Assistant Attorney Generals as required | Provide review and counsel on Board-related legal issues. Provide review and counsel on compliance, legal, and privacy policies created by the Board. |
| State Agency Data Sharing Projects | Directors and Boards of each initiative | Provide updates on initiative progress as required. Provide communication via email or presentations to the Board regarding priority issues on which they need guidance. |

Strategic Plan

GDAB Subcommittees

Since its inception in August 2009, the GDAB met once a month during which the planning progress was initiated. The Board has organized itself into three working subcommittees, in addition to the Education Data Subcommittee. These committees and their respective responsibilities are outlined below:

GDAB Subcommittees & Responsibilities



| Business | Technical | Financial |
|--|--|---|
| <ul style="list-style-type: none">• Policies & Procedures• Strategic Plan & Priorities• Legal & Privacy• Annual Reports | <ul style="list-style-type: none">• Architecture• Policies & Procedures• Data Model and Standards• Information System Operations• Security | <ul style="list-style-type: none">• Statutory Guidelines• Fee Structure• Cost Allocation Model• Financial Impact Assessments |

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The business subcommittee is responsible not only for the policies and procedures used by the Board in conducting its business, but also for making recommendations to the State CIO for all facets of data management as they relate specifically to data sharing. The business subcommittee takes the lead in guiding data management and data sharing processes within the context of all applicable legal and privacy mandates and issues.

The technical subcommittee considers such strategies and policies as architecture, data models and standards, security relating to data sharing and the operations of information systems. One of the first strategic steps that will be taken by the technical subcommittee is to recommend to the State CIO that OIT take an inventory of what data is kept by state agencies and how that data is defined. This process will take a significant period of time to gather and organize and the primary responsibility for gathering this inventory will be with the agency that is responsible for and uses the data.

The financial subcommittee will research and advise the Board on various federal and state statutes and guidelines and will ultimately develop a cost model and fee structure for data sharing. Determining the financial impact of what it costs to share data and how to equitably share the cost will be the responsibility of the financial subcommittee.

Strategic Plan Elements

In addition, the Board as a whole has identified 18 activities (areas of strategic planning) that when taken together will help meet the deliverables legislated by HB 09-1285. The table below outlines these activities in general order except in some cases, multiple objectives will be pursued simultaneously.

| | |
|----|--|
| 1 | Recommend that OIT inventory all state data systems and understand where the data is located and used. |
| 2 | Develop a data stewardship and data ownership policy. |
| 3 | Develop use cases for data sharing to identify “low hanging fruit.” |
| 4 | Identify industry best practices and apply to state processes where feasible. |
| 5 | Develop a sample memorandum of understanding for sharing data. |
| 6 | Develop a data sharing request policy including data reciprocity. |
| 7 | Develop an escalation process if a request for data is denied. |
| 8 | Develop data sharing agreement templates. |
| 9 | Develop an acceptable data usage policy. |
| 10 | Develop a data retention and destruction policy. |
| 11 | Develop an authority to release data policy. |
| 12 | Develop data security classification policies. |
| 13 | Analyze legal liability issues and adopt appropriate policies. |
| 14 | Develop privacy standards. |
| 15 | Develop a data quality policy. |
| 16 | Develop a vetting process to ensure data accuracy. |
| 17 | Address trust as a cultural issue within the data sharing community. |
| 18 | Analyze data sharing fee structure. |

The Board is currently discussing in what specific order and over what periods of time these 18 objectives will be undertaken. The final order and time lines will be determined after objectives 1, 2, 3 and 4 are determined and analyzed. In the meantime, the Board will continue its work to establish its internal processes and will undertake those initiatives that help to define the overall strategic plan.

For each strategic objective listed above, the GDAB will identify the following attributes:

1. Support, guide and make recommendations to OIT regarding the inventory of all state data systems and understand where the data is located and used.

Activities:

- a) Assume an active role in agency coordination and support of the Data Stewards Action Council (DSAC)
- b) Monitor and review the collection and inventory of all state data systems.
- c) Monitor and review the collection and inventory of all state's data elements.

Final Deliverables:

- a) Semi-annual review and update of DSAC progress
- b) Assistance in creating summary management data of inventories

Time Frame: 12 months to complete. Target - 12/31/2010

Additional resources needed: DSAC members, Agency support as a priority, OIT Enterprise Data Architect to coordinate, tool to contain and analyze the information.

2. Develop a data stewardship and data ownership policy.

Activities:

- a) Research other state/federal/private sector policies for best practices.
- b) Determine Colorado needs.
- c) Draft new policy.
- d) Run policy through OIT Office of Enterprise Architecture approval process.
- e) After final approval, assist in policy roll-out such as education etc.

Final Deliverables: GDAB approved policy

Time Frame: 5 months to complete. Target - 6/30/2010

Additional resources needed: None

3. Develop use cases for data sharing to identify "low hanging fruit."

Activities:

- a) Develop a use case template and examples of use cases for the area of educational data sharing.
- b) Provide an overview presentation of use cases and the use case template, and distribute to GDAB members.

-
- c) Each GDAB member completes appropriate data sharing use cases for their specific areas of interest. As GDAB works through use case presentations, note other possible data sharing areas.

Final Deliverables:

- a) Use case template
- b) Sample agency data sharing use cases
- c) Completion of an actual data sharing project between two agencies, to be used as a case study.

Time Frame: 8 – 10 months. Target – 12/31/10

Additional resources needed: Potential participation of GDAB member's business analysis staff for presentations of data and data sharing use cases.

4. Identify industry best practices for data sharing.

Activities:

Identify successful implementations of data sharing and the major factors that improved that process.

Final Deliverables:

Compilation of best practices and resources from successful data integration and sharing efforts.

Time Frame: 3 months to complete. Target 10/01/2010 - 12/31/2010

Additional resources needed: Access to search engines capable of gathering above information.

5. Develop a sample Memorandum of Understanding for sharing data.

Activities:

- a) Assign advisory members to gather examples of MOUs from Colorado agencies and agencies from other states.
- b) Create a repository of MOUs and examine them for language that can be applied to the enterprise MOU.
- c) Tailor the MOU to meet the needs of cross-agency data sharing among Colorado agencies.
- d) Review and revise as necessary with input from members of GDAB.

Final Deliverables:

A sample memorandum of understanding template that contains the essential safeguards and provides enough flexibility for the different types of Colorado agencies.

Time Frame: 3 months to complete. Target - May 30, 2010

Additional resources needed: Department of Law

6. Develop a data sharing request policy including data reciprocity.

Activities:

- a) Research other state/federal/private sector policies for best practices.
- b) Determine Colorado needs.
- c) Draft new policy.
 - i. Assign advisory members to gather related examples of data sharing request policies from Colorado agencies and agencies from other states.
 - ii. Create a repository of data sharing request policies and examine them for language that can be applied to the one developed for Colorado.
 - iii. Tailor the policy to meet the needs of cross-agency data sharing among Colorado agencies, and ensure that it is effectively linked to the MOU and data sharing request templates.
 - iv. Review and revise as necessary with input from members of GDAB.
- d) Run policy through OIT Office of Enterprise Architecture approval process.
- e) After final approval, assist in policy roll-out such as education etc.

Final Deliverables:

A data sharing request policy that contains the essential safeguards and provides enough flexibility for the different types of Colorado agencies.

Time Frame: Three months to complete. Target - April 30, 2010

Additional resources needed: None

7. Develop an escalation process if a request for data is denied.

Combine with strategic elements 5 and 6.

Activities:

Final Deliverables:

Time Frame:

Additional resources needed:

8. Develop data sharing agreement templates.

Combine with 5, 6 and 7.

Activities:

- a) Assign advisory members to gather related examples of data sharing agreement templates from Colorado agencies and agencies from other states.

-
- b) Create a repository of data sharing agreements and examine them for language that can be applied to the enterprise template including fee structure provisions.
 - c) Tailor the template to meet the needs of cross-agency data sharing among Colorado agencies.
 - d) Review and revise as necessary with input from members of GDAB.

Final Deliverables: A data sharing agreement template that contains the essential safeguards and provides enough flexibility for the different types of Colorado agencies.

Time Frame: Two months to complete. Target - March 31, 2010

Additional resources needed: None

9. Develop an Acceptable Data Usage policy.

Activities:

- a) Research other state/federal/private sector policies for best practices.
- b) Determine Colorado needs in conjunction with OCS (Office of Cyber Security).
- c) Draft new policy in conjunction with OCS and Department of Law (DOL).
- d) Run policy through OIT/OCS approval process.
- e) After final approval, assist in policy roll-out such as education etc.

Final Deliverable: Updated GDAB approved data security classification policy that meets enterprise needs.

Time frame: 5 months to complete. Target - 6/30/2010

Additional resources needed: Office of Cyber Security (OCS) and Department of Law (DOL).

10. Develop a Data Retention and Destruction policy.

Activities:

- a) Research other state/federal/private sector policies for best practices.
- b) Determine Colorado needs in conjunction with OCS (Office of Cyber Security).
- c) Draft new policy in conjunction with OCS and Department of Law (DOL).
- d) Run policy through OIT/OCS approval process.
- e) After final approval, assist in policy roll-out such as education etc.

Final Deliverable: A GDAB approved updated data security classification policy that meets enterprise needs.

Time frame: 5 months to complete. Target - 6/30/2010

Additional resources needed: Office of Cyber Security (OCS) and Department of Law (DOL).

11. Develop an authority to release data policy.

Activities:

- a) Review prior agreements with other state agencies
- b) Review Colo. Open Records Act (CORA) to determine/define appropriate custodian and limitations on data available to the public
- c) Ensure policy factors in various audiences (government, public safety, health, private entities)

Final Deliverable:

A GDAB approved draft policy that will be tied to other policies including Data Sharing Agreement, Acceptable Data Usage and Data Retention/Destruction

Time Frame: 3 months – Research and policy drafting. Target – 9/30/10

Work in tandem with other data sharing agreements.

Additional resources needed:

- a) Sec. of State's SCORE project
- b) Healthcare agencies and sensitivity of health data
- c) Public safety agencies

12. Develop data security classification policies.

Activities:

- a. Research other state/federal/private sector policies for best practices.
- b. Determine Colorado needs in conjunction with OCS (Office of Cyber Security).
- c. Draft new policy in conjunction with OCS and Department of Law (DOL).
- d. Run policy through OIT/OCS approval process.
- e. After final approval, assist in policy roll-out such as education etc.

Final Deliverable: Updated data security classification policy that meets enterprise needs.

Time frame: 5 months to complete. Target - 6/31/2010

Additional resources needed: Office of Cyber Security (OCS) and Department of Law (DOL).

13. Analyze legal liability issues and recommend appropriate policies.

Activities:

- a. Research Federal/State/Local statutes.
- b. Consult with Department of Law to determine Colorado needs.
- c. Draft appropriate policies in conjunction with Department of Law.
- d. Submit policies through the OIT approval process.
- e. After final approval, publish and educate.

Final Deliverables:

Published policies and/or incorporation into Enterprise Memorandum of Understanding for sharing data and other policies, as appropriate.

Time Frame: 6 months to complete. Target – 6/30/2010

Additional resources needed: Department of Law

14. Develop privacy standards

Activities:

- a) Research Federal/State/Local statutes for required compliance.
- b) Research Federal/States/Local/Private Sector standards for best practices.
- c) Determine Colorado needs in conjunction with Department of Law and Agencies' Privacy Officers.
- d) Draft new standards in conjunction with Department of Law and Agencies' Privacy Officers.
- e) Submit standard through the OIT approval process.
- f) After final approval, publish and educate.

Final Deliverables: Published Privacy Standards.

Time Frame: 6 months to complete. Target – 6/30/2010

Additional resources needed: Department of Law, Agencies' Privacy Officers

15. Develop a data quality policy

Activities:

- a) Research other state/federal/private sector policies for best practices.
- b) Determine Colorado needs.
- c) Draft new policy.
- d) Run policy through OIT Office of Enterprise Architecture approval process.
- e) After final approval, assist in policy roll-out such as education etc.

Final Deliverable: A GDAB approved new data quality policy that helps to assure the integrity of data shared by State agencies.

Time Frame: 3 months for completion. Target 6/30/2010 – 9/30/2010

Additional Resources Needed: Various Data owners, Data Stewards Action Council.

16. Develop a vetting process to ensure data accuracy.

Activities:

- a) Research other state/federal/private sector policies for best practices.
- b) Determine Colorado needs to assure data quality during the sharing process
 - a. Processes to assure no loss of data integrity during transfer.
 - b. Processes to assure no loss of data integrity as used at final destination.
- c) Develop processes to meet the defined needs.
- d) Present processes to OIT for approval and implementation.

Final Deliverable: A set of processes to assist the OIT in assuring that data sharing retains the integrity of the data.

Time Frame: 3 months after the completion of Data Quality Policies. Target 10/01/2010 – 12/31/2010

Additional Resources Needed: Various Data Owners and Users of Shared Data, Data Stewards Action Council.

17. Address trust as a cultural issue within the data sharing community.

Activities:

- a) Review and understand skepticism related to data sharing amongst agencies
- b) Draft mission statement aimed at the common good and benefits to the public

Final Deliverable:

A draft statement/resolution encouraging state agencies to cooperate and share data, while also being mindful of maintaining the integrity of the data in keeping with the best interests of the public.

Time Frame: Target - Draft resolution by 6/30/10. Project is ongoing.

Additional resources needed:

Identify potential obstacles (policies, people, agencies) resulting in distrust amongst agencies

18. Analyze data sharing fee structure.

Activities:

- a. Analyze current practices by state agencies and local governments.
- b. Research best practices in other states.

Final Deliverables: Research findings document.

Time frame: Target 9/01/2010 for research documentation. Overall project ongoing.

Additional resources needed: Department of Law. Local entities such as CCI (Colorado Counties, Inc.) and CML (Colorado Municipal League) and state agencies.

A high-level project plan with related time frames to complete these activities is shown below.

| | Task Name | Start | Finish | 2010 | | | | 2011 | | | |
|----|--|-------------|--------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | | | 4th Quarter Qtr 4 | 1st Quarter Qtr 1 | 2nd Quarter Qtr 2 | 3rd Quarter Qtr 3 | 4th Quarter Qtr 4 | 1st Quarter Qtr 1 | 2nd Quarter Qtr 2 | 3rd Quarter Qtr 3 |
| 1 | Recommend that OIT inventory all State data systems and understand where the data is located and used. | Mon 1/4/10 | Fri 12/31/10 | | [Bar] | | | | | | |
| 2 | Develop a data stewardship and data ownership policy. | Mon 1/4/10 | Wed 6/30/10 | | [Bar] | | | | | | |
| 3 | Develop use cases for data sharing. | Mon 1/4/10 | Fri 12/31/10 | | [Bar] | | | | | | |
| 4 | Identify industry best practices and apply to state processes where feasible | Fri 10/1/10 | Fri 12/31/10 | | | | | [Bar] | | | |
| 5 | Develop a sample memorandum of understanding for sharing data. | Mon 2/1/10 | Mon 5/31/10 | | [Bar] | | | | | | |
| 6 | Develop a data sharing request policy including data reciprocity | Mon 2/1/10 | Fri 4/30/10 | | [Bar] | | | | | | |
| 7 | Develop an escalation process if a request for data is denied. | Mon 2/1/10 | Fri 4/30/10 | | [Bar] | | | | | | |
| 8 | Develop data sharing agreement templates. | Mon 2/1/10 | Wed 3/31/10 | | [Bar] | | | | | | |
| 9 | Develop an acceptable data usage policy | Mon 2/1/10 | Wed 6/30/10 | | [Bar] | | | | | | |
| 10 | Develop a data retention and destruction policy | Mon 2/1/10 | Wed 6/30/10 | | [Bar] | | | | | | |
| 11 | Develop an authority to release data policy. | Tue 6/1/10 | Thu 9/30/10 | | | [Bar] | | | | | |
| 12 | Develop data security classification policies | Mon 2/1/10 | Wed 6/30/10 | | [Bar] | | | | | | |
| 13 | Analyze legal liability issues and adopt appropriate policies. | Mon 2/1/10 | Fri 7/30/10 | | [Bar] | | | | | | |
| 14 | Develop privacy standards. | Mon 2/1/10 | Fri 7/30/10 | | [Bar] | | | | | | |
| 15 | Develop a data quality policy | Tue 6/1/10 | Thu 9/30/10 | | | [Bar] | | | | | |
| 16 | Develop a vetting process to ensure data accuracy. | Wed 9/1/10 | Fri 12/31/10 | | | | [Bar] | | | | |
| 17 | Address trust as a cultural issue within the data sharing community. | Mon 3/1/10 | Fri 12/30/11 | | [Bar] | | | | | | |
| 18 | Analyze data sharing fee structure | Mon 2/1/10 | Fri 12/30/11 | | [Bar] | | | | | | |

Accomplishments

Board Accomplishments

In accordance with HB 09-1285, the Government Data Advisory Board (GDAB) was formed in July and August 2009 and the Education Subcommittee was formed shortly thereafter. The names of the GDAB Board members can be found in Appendix 1 and the Education Subcommittee members at Appendix 3.

The first Board meeting was conducted on August 21, 2009. The agenda included a HB 09-1285 Background and Overview consisting of the history of data governance in Colorado, immediate

opportunities in Race to the Top and SDLS grants, issues and challenges of the current environment and a review of the HB 08-1364 council recommendations and identified risks. A Board member orientation followed including an introduction to the organization, mission and responsibilities, governing laws, logistics and communication and expectations of Board members. The Board members then discussed various internal procedures and selected officers including a chair, vice-chair and secretary.

Additionally, regular meetings were scheduled, noticed, and attended by the Board and members of the public. Minutes have been published for each Board meeting.

Organizational Accomplishments

The Board began the prioritization of strategic planning activities and formed three new subcommittees, in addition to the Educational Subcommittee to support those activities – Business, Technical, and Financial. The Board started “Best Practice” reviews within the State to create an initial framework of practices.

The Board adopted a set of operating procedures to conduct its business. The major areas addressed in the procedures document are:

Article 1 – Creation

Article 2 – Membership

Article 3 – Officers

Article 4 – Committees and Subcommittees of the Board

Article 5 – Meetings of the Board and Committees

Article 6 – Procedures and Rules of Order

Article 7 – General Policies

Article 8 – Amendments

Knowledge Transfer

To date, presentations on GIS, Education grant applications, Justice, OIT Enterprise Architecture and the National Center for Higher Education Management Systems (NCHEMS) have been received by the Board as part of a targeted knowledge transfer process.

The Board assisted in accelerated development of data governance and enterprise data management by assisting the Education Data Subcommittee with a federal education grant application in November, 2009, and submission in December 2009.

Similarly, the Board is working towards supporting additional federal grants applications and other federal funding opportunities to support enterprise data management.

Technical training was conducted in the NIEM (National Information Exchange Model) standard for key technical Board resources.

Key Recommendations

Strategic Plan Recommendations:

The GDAB recommends the following to the State CIO:

1. That OIT inventory all state data systems and develop an understanding of where the state's data is located and used.

The first step in organizing the various types of data collected and used by various state agencies and other entities is to inventory and define what data is collected and where it resides. OIT should organize and coordinate this inventory process among all state agencies.

2. That OIT develop a data stewardship and ownership policy.

Data Stewardship means the formal accountability for business responsibilities ensuring effective control and use of data assets. A data steward is a business leader or recognized subject matter expert designed as accountable for data stewardship responsibilities.

Data stewards manage state data assets on behalf of the state and their agency. They have the responsibility for setting business policies, standards, architecture, procedures, data names, definition, data quality requirements and business rules.

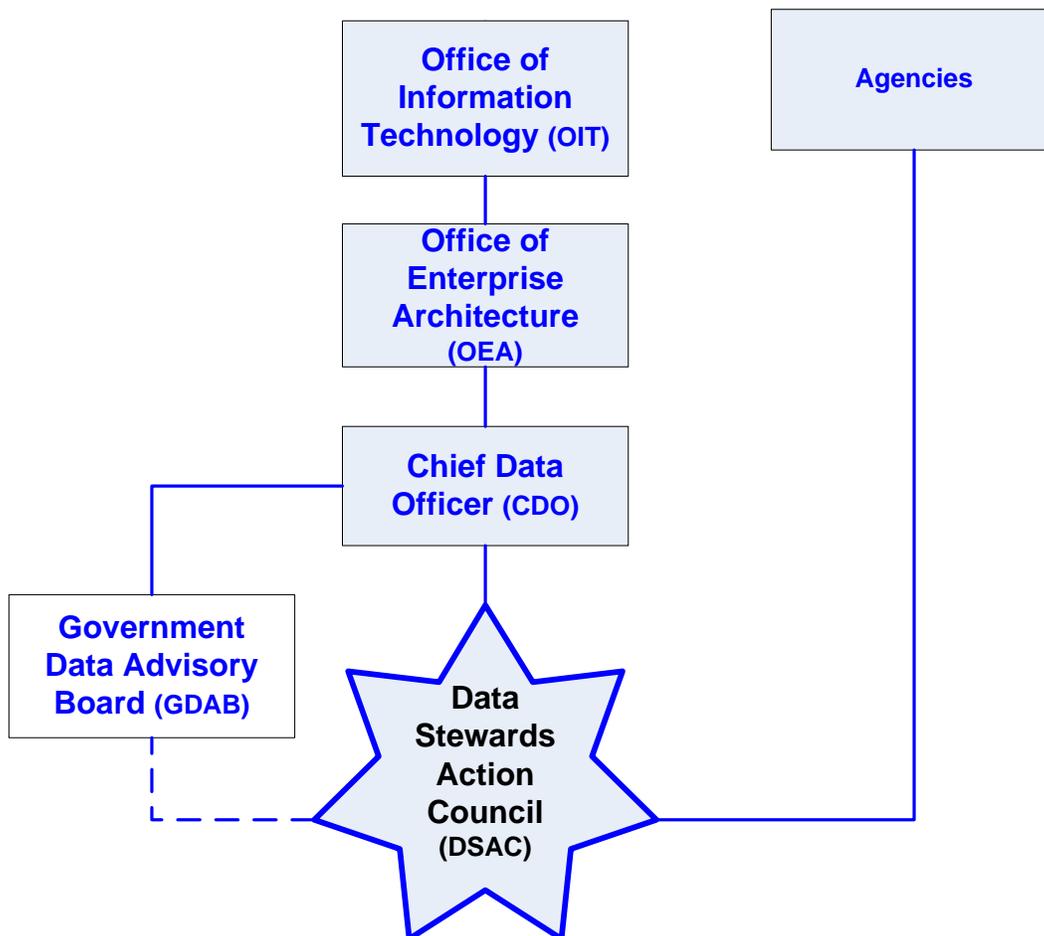
This recommendation includes formalizing and organizing the stewardship activities and processes statewide based on information subject areas. It also includes creating a common baseline of information to give a statewide foundation for data sharing, information discovery and future architectures.

A more detailed list of what the Data Steward Council will do is to:

- Establish statewide business data definitions.
- Establish data quality rules, domains, code descriptions and value sets.
- Establish validation and resolution policies and methods.
- Identify business rules and contextual security requirements regarding the use and sharing of the data.
- Define and verify technical data physical definitions.
- Define metadata repository input and retrieval methods.
- Assist with the refining of state-wide agency information subject data areas and subdomains.
- Provide input to the enterprise data model.
- Identify and define stewardship standard documents and forms.

- Identify and define data stewardship processes.
- Assist with the inventory of the state's defined business functions.
- Assist with the inventory of the state's data systems.
- Assist in identifying relationships between the Federal Enterprise Architecture (FEA), the Colorado Enterprise Architecture Framework, the National Information Exchange Model (NIEM) and recognized subject domain area models.

The Data Steward Action Council organization is shown in the following figure:



DRAFT

Appendix 1 – GDAB Members

| Board Member Name | Organization |
|----------------------|--|
| Russ Arch | Department of Public Safety |
| Theresa Brandorff | Department of Health Care Policy and Finance |
| Micheline Casey | Governor's Office of Information Technology |
| Richard Coolidge | Secretary of State |
| Daniel Domagala | Department of Education |
| Paul Engstrom | Department of Corrections |
| Ed Freeman | Denver Public Schools |
| Roger (Rick) Hammans | St. Vrain School Board |
| Patrick Kelly | National Center for Higher Education Management Systems (NCHEMS) |
| Chris Markuson | Pueblo County |
| Guy Mellor | Department of Transportation |
| Robert O'Doherty | Department of Public Health and Environment |
| Ronald Ozga | Department of Human Services |
| Wayne Peel | Department of Labor and Employment |
| Jason Presley | Department of Higher Education |

Appendix 2 - Data Management Glossary of Terms and Acronyms

This glossary of terms and acronyms is intended to serve as a communication vehicle for reading and understanding publications produced from the Enterprise Data Office Data Management Area.

Glossary of Terms and Acronyms

AFIS - Fingerprint identification system at the Colorado Department of Public Safety.

ASCII – Acronym for the American Standard Code for Information Interchange, which is a code for information exchange between computers.

AUP - Acronym for Acceptable Use Policy, which is a set of regulations that govern how a service may be used.

Authentication - A process for verifying that a person or computer is who they say they are.

Business Data Steward - A recognized subject matter experts working with data management professionals on an ongoing basis to define and control data. They will be more simply referred to as the data stewards.

Business Domains - Business domains are the natural divisions of the business architecture and are based on either functional or topical scope. Business domains represent the highest level of the state's business architecture blueprint.

Business Reference Model – The Business Reference Model (BRM) provides a framework facilitating a functional (rather than organizational) view of the federal government's lines of business (LoBs), including its internal operations and its services for citizens, independent of the agencies, bureaus and offices performing them. The BRM describes the federal government around common business areas instead of through a stovepiped, agency-by-agency view. It thus promotes agency collaboration and serves as the underlying foundation for the FEA and E-Gov strategies.

CIO – Acronym for Chief Information Officer.

CISO – Acronym for Chief Information Security Officer.

CMP-SSC - Acronym for the Collaborative Management Program State Steering Committee.

Conceptual Model - A layer of modeling that defines business entities and the relationships between these business entities. Business entities are the concepts and classes of things, people, and places that are familiar and of interest to the State.

Consolidated Reference Model - The FEA Consolidated Reference Model Document Version 2. Published in October Of 2007, contains four of the five models (Performance Reference Model (PRM), Business Reference Model (BRM), Service Component Reference Model (SRM), Technical Reference Model (TRM), that make up the Federal Enterprise Architecture. The Data Reference Model, DRM, is referenced but not repeated in this document due to its complexity and volume. Abbreviated as CRM.

Coordinating Data Steward - The data steward responsible for coordination of data stewardship activities across an information subject area. This person is responsible for insuring the integrity, quality,

security, and coordination of associated metadata across the subject area and will lead a data stewardship team.

COPPA - Acronym for the Children's Online Privacy Protection Act.

COTS - Acronym for Commercial Off-The-Shelf software.

CPO - Acronym for Chief Privacy Officer.

CRM – See “Consolidated Reference Model”.

Cyber Security – A branch of security dealing with digital or information technology.

Data Context – Data context refers to any information that provides additional meaning to data. Data context typically specifies a designation or description of the application environment or discipline in which data is applied or from which it originates. It provides perspective, significance, and connotation to data, and is vital to the discovery, use and comprehension of data.

Data Dictionary - As defined in the *IBM Dictionary of Computing*, is a "centralized repository of information about data such as meaning, relationships to other data, origin, usage, and format."]

Data Element - A precise and concise phrase or sentence associated with a data element within a data dictionary (or metadata registry) that describes the meaning or semantics of a data element.

Data Governance - Data governance refers to the operating discipline for managing data and information as a key enterprise asset.

Data Management - Data management is the development, execution and supervision of plans, policies, programs and practices that control, protect, deliver and enhance the value of data and information assets.

Data Mining - The process of extracting hidden patterns from data. Data mining identifies trends within data that go beyond simple data analysis. Through the use of sophisticated algorithms, non-statistician users have the opportunity to identify key attributes of processes and target opportunities.

Data Modeling – A structured method for representing and describing the data used in an automated system. Data modeling is often used in combination with two other structured methods, data flow analysis and functional decomposition, to define the high-level structure of business and information systems.

Data Reference Model - The Data Reference Model (DRM) is a flexible and standards-based framework to enable information sharing and reuse across the federal government via the standard description and discovery of common data and the promotion of uniform data management practices. The DRM provides a standard means by which data may be described, categorized, and shared. These are reflected within each of the DRM's three standardization areas of data description, data context, and data sharing.

Data stewardship - The formal accountability for state business responsibilities through ensuring effective definition, coordination, control and use of data assets.

Data Stewardship Teams - One or more temporary or permanent focused groups of business data stewards collaborating on data modeling, data definitions, data quality requirement specification, and data

quality improvement, reference and master data management, and meta-data management, typically within an assigned subject area, lead by a coordinating data steward in partnership with a data architect.

Data Warehouse – A central repository for significant parts of the data that an enterprise's various business systems collect specifically designed for reporting. It is a subject-oriented, integrated, time-variant and non-volatile collection of data in support of management's decision making process, specifically providing data for Online Analytical Processing (OLAP) efforts.

DBA - Acronym for database administrator.

DQA - Acronym for Data Quality Assurance, which is a process of examining the data to discover inconsistencies and other anomalies. Data cleansing activities may be performed to improve the data quality.

EDE - Acronym for Electronic Data Exchange.

Enterprise - The State of Colorado Executive Branch Agencies.

ESID - Acronym for the encrypted state ID at the Colorado Dept. of Education.

ETL – Extract, Transform, and Load, which is a process to extract data from one source, transform (or cleanse) it, and load the result into another source. This is frequently part of populating a Data Warehouse.

Extensible Markup Language - Extensible Markup Language (XML) describes a class of data objects called XML documents and partially describes the behavior of computer programs which process them. XML is a subset of SGML, the Standard Generalized Markup Language. Among its uses XML is intended to meet the requirements of vendor-neutral data exchange, the processing of Web documents by intelligent clients, and certain metadata applications. XML is fully internationalized and is designed for the quickest possible client-side processing consistent with its primary purpose as an electronic publishing and data interchange format.

Federal Enterprise Architecture - The Federal Enterprise Architecture (FEA) consists of a set of interrelated “reference models” designed to facilitate cross-agency analysis and the identification of duplicative investments, gaps and opportunities for collaboration within and across agencies. Collectively, the reference models comprise a framework for describing important elements of the FEA in a common and consistent way. Through the use of this common framework and vocabulary, IT portfolios can be better managed and leveraged across the federal government.

FERPA – Acronym for the Family Educational Rights and Privacy Act.

FIPS - Federal Information Processing Standard (FIPS), one of many standards set by the Federal government for exchanging or processing data.

Government Data Advisory Board (GDAB) – Advisory Board created by HB 09-1285 for the purpose of advising the State CIO on matters relating to data sharing.

HIPAA - Acronym for the Health Insurance Portability and Accountability Act.

Identity Management - Identity Management (IdM) means the combination of technical systems, rules, and procedures that define the ownership, utilization, and safeguarding of personal identity information.

The primary goal of the IdM process is to assign attributes to a digital identity and to connect that identity to an individual.

Information Architecture - The compilation of the business requirements of the enterprise, the information, process entities and integration that drive the business, and rules for selecting, building and maintaining that information.

Information Exchange Package Documentation - An Information Exchange Package Documentation (IEPD), is a specification for a data exchange and defines a particular data exchange. It is a set of artifacts consisting of normative exchange specifications, examples, metadata, and documentation encapsulated by a catalog that describes each artifact. The entire package is archived as a single compressed file.

Information Subject Area - Topical or functional categories of the business processes that are integral to the operations of the State and that span agencies statewide, such as Financial, Person, Geography, Organization, and Service.

Information Subject Sub-Area - A logical subset of an information subject area containing enough unique information to be addressed separately, such as within the subject area of person could be Customer (client/citizen) or Employee.

K-20 – Education from kindergarten through post-graduate college.

Logical Model - the logical data model diagrams add a level of detail for each subject area below the conceptual data model by depicting the essential data attributes for each entity. The enterprise logical data model identifies the data needed about each instance of a business entity. The essential data attributes included represent common data requirement and standardized definitions for shared data attributes.

Master Data – Data that is, for the most part, static, and changes infrequently.

Metadata – Metadata is data about data. An example is a library catalog because it describes publications. In this document, it is usually applied to databases.

Metadata registry – A metadata registry/repository is a central location in an organization where metadata definitions are stored and maintained in a controlled method. Included in the registry are approved enterprise data definitions, representations (models, XML structures), and links to physical constructs, values, exceptions, and data steward information.

Metadata – Metadata is "data about data." Metadata includes data associated with either an information system or an information object, for purposes of description, administration, legal and confidentiality requirements, technical functionality and security, use and usage, and preservation. Metadata gives us detail about both what the data means and how it's stated. Metadata is one of the greatest critical success factors to sharing information because it provides business users, developers and data administrators with consistent descriptions of the enterprise's information assets.

National Information Exchange Model - The National Information Exchange Model (NIEM) is a Federal, State, Local and Tribal interagency initiative providing a foundation for seamless information exchange. NIEM is a framework to bring stakeholders and Communities of Interest together to identify information sharing requirements, develop standards, a common lexicon and an on-line repository of information exchange package documents to support information sharing, provide technical tools to support

development, discovery, dissemination and re-use of exchange documents; and provide training, technical assistance and implementation support services for enterprise-wide information exchange.

OMB – Acronym for the Federal Office of Management and Budget.

Online Analytical Processing - Online Analytical Processing (OLAP) is a reporting and data design approach intended to quickly answer analytical queries. Data to satisfy OLAP reporting and analysis needs are designed differently than data used for traditional operational use. Although OLAP can be achieved with standard relational databases, multidimensional data models are often used, allowing for complex analytical and ad-hoc queries with a rapid execution time.

Online Transaction Processing - Online Transaction Processing (OLTP) is a class of systems that facilitate and manage transaction-oriented applications, typically for data entry and retrieval.

P-20 - Education from pre-kindergarten through post-graduate college.

Performance Reference Model – Acronym PRM, is part of the FEA.

Personally Identifiable Information (PII) – PII refers to all information associated with an individual and includes both identifying and non-identifying information. Examples of identifying information which can be used to locate or identify an individual include an individual's name, aliases, Social Security Number, email address, driver's license number, and agency-assigned unique identifier. Non-identifying personal information includes an individual's age, education, finances, criminal history, physical attributes, and gender.

PLC – Acronym for the Prevention Leadership Council.

Repository - An information system used to store and access architectural information, relationships among the information elements, and work products.

SASID - Acronym for the State Assigned Student ID at the Colorado Dept. of Education.

SCRM – Acronym for the Service Component Reference Model; part of the FEA.

SIDMOD – Acronym for the State Identification Module at the Colorado Dept. of Human Services.

SIMU – Acronym for the Student Identifier Management Unit at the Colorado Dept. of Education.

State Enterprise Data Model - An integrated, subject oriented data model defining the essential data produced and consumed across the state. The purpose of a data model is to 1) facilitate communications as a bridge to understand data between people with different levels and type of experience and help us understand the business area 2) to formally document a single and precise definition of data and data related rules, and 3) to help explain the data context and scope of third-party software. The data model is composed of three layers for communication and best utilization: The subject area model, the conceptual model, and the logical model.

Technical Data Steward - The information systems professional responsible for assuring integrity of the information captured, for proper handling of the information (not the content), and for assuring the information is available when needed. They are the custodians of the data assets and perform technical functions to safeguard and enable effective use of State data assets.

Transaction Data - Transaction data is data describing an event (the change as a result of a transaction) and is usually described with verbs. Transaction data always has a time dimension, a numerical value and refers to one or more objects (i.e. the reference data). Typical transactions are: financial: orders, invoices, payments; work: plans, activity records; logistics: deliveries, storage records, travel records, etc.

Unit Records - Records containing data that pertain directly to an individual.

XML – See Extensible Markup Language.

State Agency Acronyms

Attorney General (DOL)

Colorado Bureau of Investigations (CBI)

Colorado Children and Youth Information Sharing (CCYIS)

Colorado Data Sharing and Utilization Group (CDSUG)

Colorado District Attorneys Council (CDAC)

Colorado Integrated Criminal Justice Information System (CICJIS)

Data Governance Working Group (DGWG)

Department of Agriculture (CDA)

Department of Corrections (DOC)

Department of Education (CDE)

Department of Health Care Policy and Finance (HCPF)

Department of Higher Education (DHE)

Department of Human Services (DHS)

Department of Labor and Employment (CDLE)

Department of Local Affairs (DOLA)

Department of Natural Resources (DNR)

Department of Personnel & Administration (DPA)

Department of Public Health and Environment (CDPHE)

Department of Public Safety (CDPS)

Department of Regulatory Agencies (DORA)

Department of Revenue (DOR)

Department of Transportation (CDOT)

Division of Youth Services (DYS)

Governor's Office of Information Technology (OIT)

Office of Cyber Security (OCS)
Secretary of State (SOS)
Statewide Traffic Records Advisory Council (STRAC)

Appendix 3 - Education Subcommittee Annual Report - Narrative

HB 09-1285 Government Data Advisory Board

Education Data Subcommittee Semi Annual Report

December 1, 2009

Section 1 - Executive Summary

The Education Data Subcommittee ("Subcommittee") was created through HB 09-1285 as a subcommittee of the Government Data Advisory Board ("GDAB"). Its primary mission is to provide recommendations for the creation of a statewide comprehensive P-20 education data system.

Per HB 09-1285, the Subcommittee has the following duties:

- To recommend to the State Chief Information Officer ("State CIO") and the GDAB protocols and procedures for sharing education data among charter schools, school districts, boards of cooperative services, the Department of Education, the Department of Higher Education, and state institutions of higher education;
- To recommend to the State CIO and the GDAB appropriate information technology;
- To recommend to the State CIO and the GDAB appropriate reporting formats for education data;
- To recommend data element standards for individual student records for use by charter schools, school districts, boards of cooperative services, the Department of Education, the Department of Higher Education, and state institutions of higher education;

- To recommend electronic standards by which charter schools, school districts, boards of cooperative services, the Department of Education, the Department of Higher Education, and state institutions of higher education may share data currently being shared through other means, including but not limited to interoperability standards, standards and protocols for transfer of records including student transcripts, and the use of data-exchange transcripts;
- To recommend the design and continuing development of a statewide comprehensive P-20 education data system.

Section 2 - Background and Overview

Mission

The Subcommittee was created through HB 09-1285 as a subcommittee of GDAB. Its primary mission is to provide recommendations for the creation of a statewide comprehensive P-20 education data system.

Vision

The vision of the Subcommittee is to advise the State CIO and GDAB in creating a comprehensive P-20 education data system that permits the generation and use of accurate and timely data to support analysis and informed decision-making at all levels of the education system. The intent of this system is to increase the efficiency with which data may be analyzed to support the continuous improvement of education services and outcomes, facilitate research to improve student academic achievement and close achievement gaps, support education accountability systems, and simplify the processes used by State and local educational agencies to make education data transparent through Federal and public reporting.

Risks and Barriers

The following issues will be considered by the Subcommittee as its work progresses:

- Cultural, control, and change management issues within State and local agencies.
- The availability of adequate financial, time, and human resources to implement an enterprise program and system infrastructure to support the cross-departmental data protocol.
- Meeting compliance standards set by Federal and State statute and regulation.
- Ensuring that recommended statutory or regulatory changes can be met in a timely manner.
- Addressing privacy and security concerns.
- Possible changes in political/legislative environment.

Considerations/Issues

Prioritizing the Subcommittee's work is challenging due to a number of external factors of which most prominently include the SLDS and Race to the Top grants, potential legislation and outcomes, and pending State Board of Education rules.

Section 3 - Activities to Date

October 2, 2009 – First regular Subcommittee meeting held. Members were provided an overview of Colorado's data sharing and standardization history and legislation, Board and Subcommittee procedures, and expectations of the Subcommittee. Members also selected Jeremy Felker for Chair and Dan Domagala for Vice Chair.

October 23, 2009 – Subcommittee met and discussed the SLDS grant application, CDE and LEA data collection and reporting requirements, and the Colorado Growth Model application. Started working on the Subcommittee's December report, charter and procedures.

November 10, 2009 – Subcommittee met and discussed high level use cases for postsecondary and CDHE data collection and reporting as part of the initial data discovery efforts. We finalized our December report, charter, and procedures.

Section 4 - Recommendations

The Subcommittee is currently working to develop recommendations in the following areas:

- Protocols and procedures for sharing education data
- Information technology and reporting formats for education data
- Data element standards
- Electronic standards
- Design and development of a statewide comprehensive P-20 data system

Prioritization of Work

Prioritizing the Subcommittee's work has been difficult due to the recognition of the number of external factors of which most prominently includes the State Longitudinal Data System and Race to the Top grants. If these grants are awarded to Colorado, the Subcommittee's work will be prioritized by the deliverables in the applications.

Beside the priorities determined by these grants, the Subcommittee is focused on identifying the "low hanging fruit" of data elements between P-20 educational agencies.

Action Plan

For the first year, the Subcommittee will begin the data discovery process through the presentation of high level use cases by subject matter experts of the current educational data collection requirements and reporting for the educational agencies.

These use cases will identify the "low hanging fruit" of data elements between P-20 educational agencies.

The Subcommittee will also update the action plan based upon the deliverables in the State Longitudinal Data System and Race to the Top grants, if awarded.

Section 5 - Appendices

Appendix A - HB 09-1285 Act

Appendix B - Stakeholders

The following stakeholders have been identified as having a key interest in the program:

- Government Data Advisory Board and its Sponsors and Stakeholders
- Colorado Department of Education
- Colorado Department of Higher Education
- State Board of Education
- Colorado Commission on Higher Education
- Colorado State Agencies

These stakeholders have a vested interest in, and will be impacted by, the work done by the Subcommittee. The impact areas include policy, technology, financial, and business processes.

Appendix C - Education Data Subcommittee Members

- Daniel E. Domagala, Rep. Department of Education
- Ronald M. Ozga, Rep. Department of Human Services
- Jason A. Presley, Rep. Department of Higher Education
- Roger Hammans, Rep. School District Board of Education
- Ed Freeman, Rep. Employee of School District with Expertise in Data Sharing and IT
- Jeremy E. Felker, Littleton, Rep. Education Data Advisory Committee
- Vacant, Rep. Information Officers Employed by School Districts
- Jody L. Ernst, Golden, Rep. State Charter Schools
- Vacant, Rep. State Charter School Institute
- John H. McCabe Jr., Loveland, Rep. Boards of Cooperative Services
- Vacant, Rep. Information Officers Employed within State System of Community and Technical Colleges

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- Patrick J. Burns, Fort Collins, Rep. Governing Boards of State Institutions of Higher Education
 - Emily Bustos Mootz, Denver, Rep. Early Childhood Councils
 - Pamela R. Buckley, Golden, Rep. Institutions of Higher Education or Nongovernmental Organizations
 - Jeffery W. McDonald, Evergreen, Rep. Nonprofit Advocacy Groups that work in Children's Issues
 - Vacant, Rep. Statewide Membership Organizations of Education Professionals and Local Boards of Education
 - Stacie Demchak, Colorado Department of Education, Non-voting Member

Appendix D - Glossary of Terms and Acronyms

Combined with Enterprise Glossary of Terms and Acronyms