

# **Enterprise Data Standards Framework**

Version 1.0

**ISB Guidelines**

**January 13, 2011**

**Washington State**  
**Enterprise Architecture**  
Information Architecture

Framework, Guidelines, and Templates

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## 19 **1. Purpose**

20 The Data Standards Framework is designed to help agencies develop state enterprise data standards. It  
21 includes steps and templates to help document value proposition, obtain sponsorship, engage  
22 stakeholders, and drive new data standards to completion. Stakeholder participation is key.

23 The Framework is designed to help agencies succeed. It provides details, yet is designed for flexibility  
24 and agility. Tasks and steps may be combined where possible for efficiency.

25 This document, related templates, processes and websites are expected to evolve as more enterprise  
26 data standards are developed and agencies continue to collaborate and coordinate.

## 27 **2. Description**

28 This document defines the Framework, with guidelines and processes, to help state enterprise lines of  
29 business and agencies establish **Tier One** enterprise data standards. Glossary entries and References  
30 noted in **BOLD**.

31 The Framework provides a step-by-step process:

- 32 • Step 1 - Identify and confirm business drivers;
- 33 • Step 2 - Involve stakeholders;
- 34 • Step 3 - Set data standards;
- 35 • Step 4 - Develop implementation plans; and
- 36 • Step 5 - Monitor implementation

37 Appendices

- 38 • Appendix A - Roles and Responsibilities Matrix - who should participate.
- 39 • Appendix B - Process Flow Chart - who does what, and when and how the steps fit together.
- 40 • Appendix C - Implementation Plan Template - expected budgets/costs, schedules, roles, migration  
41 strategies, and more.

42 Related Materials

43 <http://isb.wa.gov/policies/enterprisearchitecture.aspx>

- 44 • Data Standards Business Case Template
- 45 • Data Standards with Data Dictionary Template

46 Key Term

- 47 • Data Standard – Documented agreement on the format and definition of common data. Established  
48 consistent specifications for data elements, such as the name of the data standard, definition, field  
49 length, executive data steward, and other components.

50 State enterprise data standards may be specific to a line of business such as Finance, Supply Chain  
51 Management, or span business functional areas (e.g. name, address.)

## 3. Enterprise Data Standards Framework

### 3.1. Identify and Confirm Business Driver

A business case helps identify and communicate the value proposition for establishing enterprise data standards. Not all data or information has the same associated value or risks.

Data standards proposals can be initiated various ways such as: Governor or legislative direction, enterprise goals and strategies, Information Services Board, committees, groups, agencies, businesses, or individuals.

Once initiated a Primary Steward is needed to drive to business case and proposed data standards to completion using the Data Standards Framework process and templates.

#### 3.1.1. Identify Business Need and Begin to Populate Business Case (*Initiator/Primary Steward*)

- Check for existing state data standards on the state's data website (aka registry) and Access Washington search tool before starting business case.
- Check federal, state; and industry data standards for efficiency and interoperability. Include sites like NIEM.gov in your search.
- Identify and contact potential primary steward. Some data may have clear owners, while other may require additional executive sponsors to support project.
- Download business case template from: <http://isb.wa.gov/policies/enterprisearchitecture.aspx>
- Start to draft Business Case and communicate with potential executive sponsors, data stewards, and stakeholders.
- Note and begin to address any key issues or decisions.

#### 3.1.2. Review Business Case (*State EA Program*)

- Review draft business case with EA Program to help verify proposal is a likely candidate for Tier One enterprise data standards.
- EA Program should help Primary Steward identify necessary steps, potential stakeholders, and help enable business case to move forward.

#### 3.1.3. Possible Tier One Standard? (*Primary Steward/State EA Program*)

- Check state Data Standards website for existing or related standards, subject area, and Primary Steward/business owner.
- Decide if proposed standards qualify as Tier One using ISB definitions of tiers and EA Committee Principles; identify if business case includes enough information to proceed.
- If no, contact Initiator with findings or request more information to make a decision. If yes, send initial draft business case to Primary Steward.

#### 3.1.4. Identify Executive Sponsors. (*Primary Steward*)

- If Executive Sponsors have not yet been identified, Primary Steward should identify appropriate sponsors to help review business case.
- Inform Executive Sponsors when business case requires their review.

#### 3.1.5. Review Business Case w/Dependencies and Success Factors (*Executive Sponsors*)

- 89 • Review business case to determine whether proposal is sound and confirm sufficient executive  
90 support to continue.
- 91 • Discuss possible system dependencies and associated risks. Determine if the data standards alone  
92 will solve the business problem or whether there are other steps required such as the development of  
93 an information system.

94 **3.1.6. Approve Business Case to Move Forward** (*Executive Sponsors*)

- 95 • If no, let Initiator, Primary Steward, and state EA Program know why not recommended to go forward.
- 96 • If yes, establish a Steering Committee if needed or assign similar functional roles. Assign Primary  
97 Steward to chair or facilitate Data Stewards.

98 **3.1.7. Assign the Data Stewards** (*Steering Committee*)

- 99 • Identify business and technical subject matter experts who should be Data Stewards. Request their  
100 participation in this data standards project before handing off the business case.

101 **3.1.8. Ensure Enterprise Readiness** (*EA Committee*)

- 102 • Review Business Case with Primary Steward to ensure enterprise readiness, strategic business and  
103 IT plan alignment, linkages to common enterprise business activities, industry standards or best  
104 practice awareness and consideration, and expected stakeholder participation.

105 **3.2. Involve Stakeholders**

106 Stakeholder identification, participation, and endorsement are key to successful establishment and  
107 implementation of data standards.

108 **3.2.1. Identify & Create Complete Stakeholder Map** (*Data Stewards*)

- 109 • Identify business agencies with an interest in the outcome of the new data standards.
- 110 • Consult with each impacted agency to ensure involvement of all appropriate parties in both business  
111 and IT to guarantee integrity and success of the workgroup.
- 112 • Identify potential system of record and other key impacted systems. Include those system  
113 stakeholders in the list.
- 114 • Update stakeholder list in business case.

115 **3.2.2. Communicate Business Case to Stakeholders** (*Data Stewards*)

- 116 • Send business case to stakeholders to inform them work has begun to set enterprise data standards.
- 117 • Request response on strength of identified business needs and on stakeholder list completeness.
- 118 • Assist in coordinating meetings if needed to supplement email correspondence.

119 **3.2.3. Review Business Case** (*Stakeholders*)

- 120 • Thoroughly review business case and give feedback to Data Stewards.
- 121 • Add comments to business case to strengthen; add any other potential stakeholders.

122 **3.3. Set Data Standard**

123 **3.3.1. Develop, Refine & Recommend Data Standards & Target Implementation Date** (*Data Stewards*)

- 124 • Check for related state data standards on the state's **data website (aka registry)** and Access  
125 Washington search tool before developing data standards.
- 126 • Check federal, state; and industry data standards for efficiency and interoperability.
- 127 • Download the Data Standards with Data Dictionary template from:  
128 <http://isb.wa.gov/policies/enterprisearchitecture.aspx>
- 129 • Primary Steward should convene the Data Stewards.
- 130 • Data Stewards should research current federal, state and agency practices, related legislation,  
131 applicable professional standards, and technology directions that may impact data standards under  
132 consideration.
- 133 • Data Stewards should develop a discussion draft of proposed data standards based on research  
134 results.
- 135 • Business Case should accompany proposed draft so readers have a sense of why the data standards  
136 are being created or changed.
- 137 • Include high-level usage scenario with data exchanges. Include diagrams as needed.
- 138 • Include a recommended implementation strategy, such as when building new information systems, or  
139 converting existing systems, or utilization of cross-walks.
- 140 • As a team, work to complete the business case.
- 141 • Send completed business case, any discussion drafts, and draft data standards to stakeholders.
- 142 **3.3.2. Identify Potential Impact to Implement (Stakeholders)**
- 143 • Review business case along with impacts to implement as identified by Data Stewards; add impacts  
144 not considered. Note: this is not the final implementation plan, but should be detailed enough so  
145 Steering Committee and Executive Sponsors will know if there are serious concerns on the time and  
146 cost to implement proposed data standards.
- 147 • Send information back to the Data Stewards.
- 148 **3.3.3. Complete Data Standards Template (Data Stewards)**
- 149 • Review feedback and high level impact analysis received from stakeholders.
- 150 • Fill out Data Standards template and update business case with information collected from  
151 stakeholders.
- 152 • Send completed documents to stakeholders for review.
- 153 **3.3.4. Review Data Standard (Stakeholders)**
- 154 • Review final draft documents and send final feedback to Data Stewards.
- 155 **3.3.5. Review Potential Data Standards, Impact Analysis and Target Implementation Date (Steering**  
156 **Committee)**
- 157 • Review documents prepared by Data Stewards to determine if complete and proposal is still a valid  
158 enterprise endeavor.
- 159 **3.3.6. Proceed? (Steering Committee)**
- 160 • Decide whether to move forward with proposed data standards.

- 161 • If no, send back to Data Stewards for more work or to cancel proposal.
- 162 • If yes, Primary Steward presents to Executive Sponsors for review.
- 163 **3.3.7. Review Business Case and Proposed Data Standards (Executive Sponsors)**
- 164 • Review documents to determine if proposal meets original goals and is a valid enterprise endeavor.  
165 Consideration should also be given to concerns surrounding the impacts to implementation.
- 166 **3.3.8. Approve Data Standards to Move Forward? (Executive Sponsors)**
- 167 • If no, send documents back to Steering Committee and Data Stewards for more work or to cancel  
168 proposal.
- 169 • If yes, Primary Steward presents proposal to the state EA Committee to ensure enterprise readiness  
170 for elements for success.
- 171 **3.3.9. Ensure Enterprise Readiness (EA Committee)**
- 172 • Ensure proposed data standards align with state EA Principles, ISB EA standards, and utilize  
173 Framework process to ensure success.
- 174 **3.3.10. Request ISB Adoption or Notify Complete (EA Committee, Primary Steward)**
- 175 • Request ISB adoption, or notify complete as needed (due to scope, impact, related ISB policies, and  
176 other considerations.)
- 177 **3.3.11. Update Data Standards Website/Registry (State EA Program)**
- 178 • Enter approved information into the state data standards website/registry.
- 179 **3.3.12. Communicate to All Agencies (Primary Steward/State EA Program)**
- 180 • Send communications to all state agencies via multiple channels to increase awareness of newly  
181 adopted data standards. Include business and IT leaders in communications.

## 182 **3.4. Develop Implementation Plans**

- 183 **3.4.1. Prepare High-Level Implementation Plans (Stakeholders)**
- 184 • Review Implementation Plan template and begin Implementation Plan (see Appendix D.)
- 185 • After Executive Sponsors approve the data standards, agencies should document how and when  
186 they will implement them.
- 187     ▪ Agencies impacted by the data standards should develop a high level implementation plan  
188 addressing the planned date of compliance and implementation risks.
- 189     ▪ Agencies currently not impacted should document it doesn't apply to them at this time.
- 190 • State EA Program will provide data standards assistance to agency stakeholders.
- 191 **3.4.2. Review Implementation Plans (Data Stewards)**
- 192 • Review agency implementation plans for completeness and possible timeline risks. Report should  
193 include unresponsive agencies.
- 194 **3.4.3. Review Implementation Plans (/Steering Committee)**
- 195 • Review implementation plans for completeness and possible timeline risks.
- 196 **3.4.4. Review Implementation Plans (Executive Sponsors)**

- 197 • Review implementation plans for completeness and possible timeline risks.

### 198 **3.4.5. Approve Agency Implementation Plans** (*Executive Sponsors*)

199 Implementation plan reviews should include an assessment of any statewide impacts (such as funding  
200 requests for implementation, changes needed to enterprise systems, etc.)

- 201 • If no, send plan back to stakeholders for more work.
- 202 • If yes, pass implementation plans on to state EAC

### 203 **3.4.6. Ensure Enterprise Readiness and Success** (*EA Committee*)

- 204 • Review to ensure enterprise readiness, strategic business and IT plan alignment, linkages to common  
205 enterprise business activities, and other opportunities for success.

### 206 **3.4.7. Communicate to Impacted Agencies** (*State EA Program/Primary Steward*)

- 207 • Communicate ISB and/or Executive Sponsor actions to all stakeholders and agencies including  
208 endorsement of implementation plans or amendment of implementation strategy.

## 209 **3.5. Monitor Implementation**

### 210 **3.5.1. Summarize and Communicate Timelines** (*Primary Steward*)

- 211 • Publish summarized agency implementation timelines
- 212 • Notify agencies a request for implementation status will be requested of them [insert timeframe.]

### 213 **3.5.2. Compile Reports and Communicate Updates** (*Primary Steward*)

- 214 • Collect and compile implementation reports on an agreed upon timeframe and communicate to all  
215 interested parties.

### 216 **3.5.3. Report on Implementation Progress and Estimated Completion Date** (*Stakeholders*)

- 217 • Periodically report on the data standards implementation status to ISB and Executive Sponsors.
- 218 • Compile reports on agreed upon timeframe and submit to state EA Program.

## 219 **4. Glossary**

### 220 **DATA GOVERNANCE**

221 The exercise of authority and control (planning, monitoring and  
222 enforcement) over the management of data assets. (DAMA) An  
223 operating discipline for managing data and information as a key  
enterprise asset. (NASCIO)

### 224 **DATA STANDARD**

225 Documented agreement on the format and definition of common  
226 data. Established consistent specifications for data elements,  
227 such as the name of the data standard, definition, field length,  
executive data steward, and other components.

### 228 **EA PROGRAM**

229 An effort chartered by the Information Services Board and  
230 staffed by Management and Oversight of Strategic Technology  
231 Division of Department of Information Services whose mission is  
232 to lead and facilitate the development of enterprise architecture  
for Washington State government.



- 233 **STATE SUBJECT AREA LIST** State subject areas with Business Owner, responsible agency or  
234 group of agencies, and related data elements/attributes.
- 235 **TIER ONE** Business processes, data, or technologies that are common for  
236 the state.
- 237 Enterprise Architecture Tier Definitions and Diagram  
238 <http://isb.wa.gov/committees/enterprise/concepts/>

## 239 5. References

- 240 **DAMA** Data Management Association, Data Management Body of  
241 Knowledge, DAMA-DMBOK Guide, 2009.
- 242 **NASCIO** Data Governance, National Association of Chief Information  
243 Officers, 2008-2009.

## 244 6. Document Context

245 This document is within the scope of the state’s Enterprise Data Standards Initiative. It is defined as a  
246 deliverable within the Initiative Charter adopted on January 8, 2009 by the Information Services Board  
247 (ISB). Objectives include:

- 248 • Develop a framework and guidelines for a repeatable governance model by which state agencies will  
249 work together to create and maintain enterprise data standards.

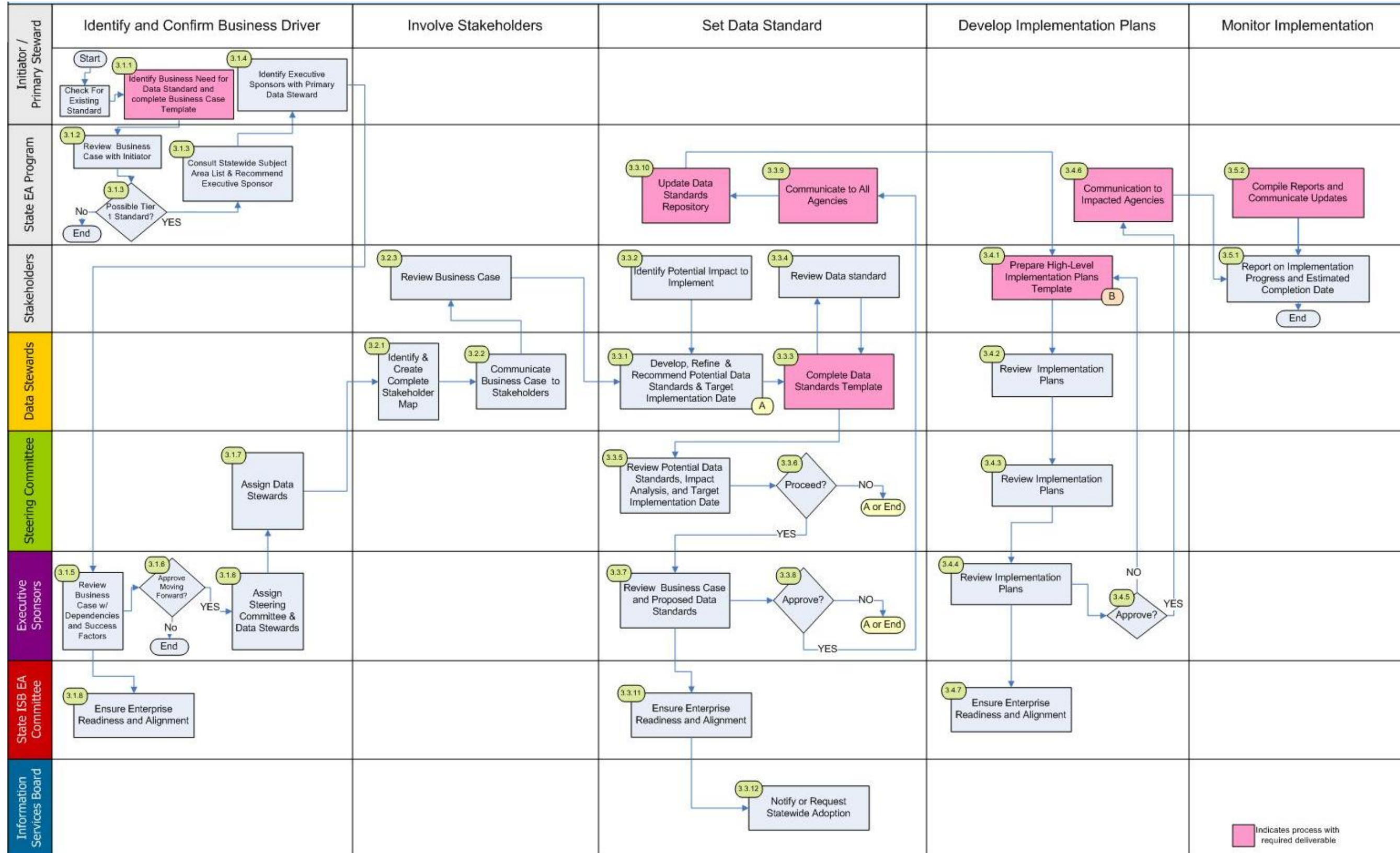
## 250 7. Document History

Date	Version	Editor	Endorse/Adopt	Change
November 2010	1.0	Paul Warren Douglas, DIS Allen Schmidt, OFM Lori Jones, OFM Stephen Backholm, DSHS Servando Patlan, GA David Jennings, DOH John Finnan, DOL	Documenter Team Endorsed	Initial Draft, Documenter Team edits, synchronization, and plain talk
December 2010	1.0	Paul Warren Douglas, DIS	EA Committee Endorsed	Changes for agility and flexibility.
January 13, 2011	1.0	Paul Warren Douglas, DIS	ISB Adopted Guidelines	

## 8. Appendix A – Roles & Responsibilities Matrix

Role	Definition/Responsibilities	Example – Supply Chain Management, NIGP Commodity Codes Data Standards
<b>Initiator</b>	Data standards can be initiated various ways such as: Governor, legislative, or Information Services Board direction, enterprise goals and strategies, committees, groups, agencies, businesses, or individuals. Once initiated, a Primary Steward is needed to drive to completion.	<ul style="list-style-type: none"> <li>• State’s Government Reform Initiative, Procurement Reform Initiative and Strategy</li> <li>• State Financial Roadmap Initiative</li> <li>• Department of General Administration</li> </ul>
<b>Primary Steward</b>	Primary sponsor and/or business owner responsible for business case and proposed data standards. Agencies may have clear ownership or designated responsibility. Participates on Steering Committee, and chairs or facilitates Data Stewards.	<ul style="list-style-type: none"> <li>• Department of General Administration</li> </ul>
<b>Executive Sponsors</b>	Primary business area executives for approving/endorsing business case and proposed data standards. Lead data governance team that ensures enterprise business value, alignment, and performance. Includes senior managers and one or more Executive Sponsor may exist. Typically organizes projects around major subject areas and functions of state government including lines of business. Assigns tasks to Steering Committee or similar role.	<p>Executive business sponsors represented agencies with key state Supply Chain Management responsibilities</p> <ul style="list-style-type: none"> <li>• General Administration</li> <li>• Office of Financial Management</li> <li>• Department of Personnel</li> <li>• Department of Printing; and</li> <li>• Department of Information Services</li> </ul> <p>*State Financial Roadmap Executive Steering Committee agencies noted above</p>
<b>Steering Committee</b>	Senior business and technical leaders. responsible for support and oversight of a particular data management initiative launched by Executive Sponsors and Primary Steward. This role may be formal, ad hoc, or sometimes combined with executive sponsors depending on variables such as proposal scope, related investments, and enterprise governance models.	<ul style="list-style-type: none"> <li>• Procurement Reform Decision Team</li> </ul>
<b>Data Stewards</b>	Agencies and temporary or permanent groups. Business and technical subject matter experts that help develop, refine and recommend potential data standards. Ensure data stewardship activities are consistent with standards. Potential early adopters.	<ul style="list-style-type: none"> <li>• Procurement Reform Workgroup</li> <li>• Financial Management Advisory Council (FMAC)</li> <li>• Agencies with key Supply Chain Management systems, including early adopters</li> </ul>
<b>Stakeholders</b>	Agencies, individuals, groups, and any public and private sector organizations affected by the creation and implementation of proposed data standards.	<ul style="list-style-type: none"> <li>• Central Service Customer Advisory Group</li> <li>• National Institute of Government Purchasing (NIGP)</li> <li>• State agencies and entities</li> <li>• Vendors</li> </ul>
<b>State Enterprise Architecture Program</b>	Leads and enables enterprise architecture development for Washington state government and ISB EA Committee initiatives. Staffed by Management and Oversight of Strategic Technology Division of Department of Information Services.	<ul style="list-style-type: none"> <li>• State EA Program worked with Department of General Administration</li> </ul>
<b>ISB Enterprise Architecture Committee</b>	Enables collaboration among state’s business programs and information systems. Composed of agency Chief Information Officers and other representatives.	<ul style="list-style-type: none"> <li>• EAC reviewed NIGP Commodity Codes for state enterprise readiness</li> </ul>
<b>Information Services Board</b>	ISB is responsible for information technology (IT) services planning, acquisitions, policies and standards. Reviews IT projects as required by Washington’s investment and portfolio management policies. Includes leaders from legislative, judicial and executive branches of government, and from private sector.	<ul style="list-style-type: none"> <li>• ISB and Department of General Administration (GA) adopted/approved NIGP Commodity Codes as state enterprise data standards</li> </ul>

## 9. Appendix B - Process Flow Chart



## 254 **10. Appendix C – Implementation Plan Template**

### 255 **Introduction & Background**

256 *Provide a high-level description of the product or services to be implemented.*

### 257 **Implementation Approach**

258 *Describe the overall approach to be used in product implementation. Include any assumptions that impact*  
259 *this approach.*

### 260 **Budget**

- 261 • Identify the budget associated with implementation activities (in the context of the original financial  
262 plan).

### 263 **Schedule**

- 264 • Describe the implementation schedule and factors influencing that schedule. Include reference to  
265 business cycles or other timing considerations (in the context of the original project schedule).

### 266 **Roles & Responsibilities**

- 267 • Identify the roles and responsibilities associated with implementation as well as the skill set needed to  
268 perform those functions. Key roles to identify include the primary business contact, implementation  
269 team lead(s), key technical staff, customer or help desk support, documentation and other support  
270 staff.

### 271 **Training**

- 272 • Describe user and support training activities supporting implementation (in the context of the original  
273 training plan).

### 274 **Customer Management**

- 275 • Describe how stakeholder/customers will be involved in or informed about implementation activities.  
276 Describe key stakeholders and methods for communication where known.

### 277 **Migration or cutover strategy**

- 278 • Describe how the product or service will be migrated into the business environment. This section will  
279 include any conversion details, sequencing, establishment of production environment, installation of  
280 equipment, and the like.

### 281 **Documentation**

- 282 • Describe product or system documentation and how information is stored and accessed. Include  
283 descriptions of material that will be produced during implementation and transition activities. Include  
284 details on where documentation is stored and how it is accessed.

### 285 **Turnover**

- 286 • Describe product/service turnover activities and any assumptions related to turnover. Describe or  
287 reference the state or status of the product/service at the time of turnover. Identify any turnover  
288 activities that must be performed by a vendor in transitioning product/service to state staff.

### 289 **Acceptance**

- 290 • Define the point at which business and project staff agree that implementation will be complete and  
291 transition to maintenance can occur.

### 292 **Implementation and Transition Acceptance**

- 293 • Insert signature block indicating acceptance of new system.