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Geospatial Line of Business Program Management Office
Concept of Operations

1 INTRODUCTION
The Geospatial Line of Business (LoB) commenced a task force in March 2006 comprised of over twenty Federal agencies, to develop a set of common solutions, and a target architecture (CS/TA) to enhance the management and effectiveness of federal geospatial programs and investments. The Concept of Operations (ConOps) contained within the CS/TA introduced a future operating environment within of which participating organizations, stakeholders, partners, and individuals will interact and manage geospatial assets to support business-driven requirements. It is within this context that the proposed common solutions will be deployed in order to realize the vision, goals, and objectives of the Geospatial LoB.

The role of the Geospatial LoB Program Management Office (Geospatial PMO) is to provide contractor staff support administered by the Federal Geographic Data Committee (FGDC) Secretariat, with management oversight by the FGDC Coordination Group, and with policy guidance by the FGDC Steering Committee for task execution of the Geospatial LoB. The Geospatial PMO is responsible for enhancing Managing Partner (Department of Interior, USGS) support functions and daily execution of the tasks required to hit cost and schedule performance requirements outlined in the FY 2008 Exhibit 300.

2 VALUE PROPOSITION
The Geospatial LoB identified a gap between current the FGDC Secretariat mission, funding, and functional roles and responsibilities to those that are required by the LoB to execute the FY 2008 Exhibit 300. A performance baseline and sixteen milestones that must be achieved within cost and schedule estimates have been identified in order to effectively develop the solutions identified within the CS/TA and realize the Geospatial LoB vision, goals, and objectives. As a government-wide initiative leveraging the contributions of over twenty agencies, the LoB identified the need for a PMO to manage execution phase performance and administer the LoB.

Effective Geospatial PMO performance management and administration will allow the FGDC Coordination Group (under the guidance of the Steering Committee) to remain focused on the development activities outlined in the CS/TA resulting in the following outcomes that are critical to the success of the Geospatial LoB:

- An established governance model that ensures active stakeholder participation in the management of nationally significant geospatial assets
• Performance measures and service level agreements (SLAs) that provide enhanced data and service stewardship to improve service to citizens and government agencies

• A Federal government-wide geospatial investment strategy is implemented to facilitate more coordinated budget planning and acquisitions of geospatial data and services

• Consistent integration of geospatial capabilities into Federal agencies enterprise architectures wherever appropriate

• Management of nationally significant geospatial assets as a Federal-wide common capital asset within a Federal portfolio

• Enhanced discovery, access, delivery, and brokering services for nationally significant geospatial data and services

• Enhance awareness of geospatial capabilities and their appropriate usage through training and outreach

3 ORGANIZING FRAMEWORK

3.1 PMO Organizational Structure

The Geospatial PMO will be administered by the FGDC Secretariat and staffed by contractor support personnel. PMO personnel will possess the subject matter expertise to support the FGDC Coordination Group by performing all tasks assigned to the PMO as defined within the Geospatial LoB Statement of Work (SOW). The organizational structure of the PMO must align with the PMO Programs of Work outlined in the CS/TA (See Geospatial LoB CS/TA, Appendix D). Figure 1 depicts the required functional roles envisioned to meet the PMO Programs of Work and sustain Geospatial LoB operations.

3.2 PMO Support Dimensions

The Geospatial PMO supports the LoB and interfaces with both internal and external stakeholders as directed by the FGDC Coordination Group. Stakeholder needs are organized around a set of dimensions that serve as an organizing framework throughout the remainder of this document.
PMO performance will be measured across each support dimension in alignment with the Geospatial PMO Performance Management and Risk Management Strategies to ensure a balanced, multidimensional view of the PMO’s capability to add value. Primary PMO support functions fall within the following dimensions:

- **Strategic** – relating to high-level goals, aligned with and supporting the LoB's mission/vision.

- **Operations** – relating to the effectiveness and efficiency of PMO operations, including performance and return on investment goals.

- **Reporting & Compliance** – relating to the effectiveness of the PMOs internal and external reporting and compliance with governing bodies, regulations or guidance.

4 **STRATEGIC SUPPORT ACTIVITIES**

Strategic activities include the development of the common solutions outlined in the CS/TA. As depicted in Figure 2, these solutions are organized around three solutions tracks. Each solution track plays a critical role in supporting the vision, goals, and objectives of the Geospatial LoB and is overviewed in more detail in Attachments, Figure A1.

![](Figure 2 Common Solutions Tracks)

4.1 **Enhanced Governance**

Enhanced governance solutions will result in enhanced performance accountability and compliance mechanisms. For the Geospatial PMO, this includes interfacing with a stakeholder centric governance
model and robust performance, evaluation, accountability, and reporting mechanisms required to make the National Spatial Data Infrastructure (NSDI) operational, and improve Federal Agency geospatial program coordination and performance.

4.1.1 Performance Management

Through subject matter expertise involvement in strategy development and implementation task execution, the Geospatial PMO will be responsible for supporting the FGDC Coordination Group in the design and implementation of an NSDI Performance Management Plan (NSDI PMP) that improves performance accountability across the LoB. As a transitional support activity, the Managing Partner has already developed a Geospatial LoB Performance Management Strategy (PMS). This PMS will serve as a baseline from which the FGDC Coordination Group can begin its development process of an NSDI PMP.

4.1.2 Performance Reporting

The PMO will be responsible for supporting the FGDC Coordination Group in the implementation of the NSDI PMP. The PMP must contain executable activities and mechanisms that will provide the PMO with the capability to assess, track and report on:

- Planned performance baseline improvements for each Geospatial LoB mission and strategic goal in alignment with the Federal Enterprise Architecture (FEA) Performance Reference Model (PRM) measurement guidance and established goals in the Exhibit 300, Part I, Section D, Table 2
- Cost and schedule performance variances for each program milestone detailed in the Exhibit 300, Part IV, Section C, Table 9
- Outcome oriented metrics, reflective of customer-centric results, to ensure that as the common solutions are developed, they have the expected performance impact on the LoB
- Operational performance of the PMO to ensure that it is effectively meeting customer needs
- Reporting and compliance performance of the LoB to manage risks, and ensure that the mechanisms designed to reach strategic and operational objectives are properly utilized

Enhanced Governance cost and schedule performance factors are outlined in Table 1.
Table 1 – Performance Management Milestones

<table>
<thead>
<tr>
<th>Solution Track</th>
<th>Outcome</th>
<th>Milestones</th>
<th>Exhibit 300 Schedule</th>
<th>Exhibit 300 Contract Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced Governance</td>
<td>Performance Accountability</td>
<td>Performance Management Strategy</td>
<td>07/01/07</td>
<td>.149</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Performance Management Plan</td>
<td>08/01/07</td>
<td>.413</td>
</tr>
<tr>
<td>Compliance Mechanisms</td>
<td>Performance Management Implementation</td>
<td>09/30/07</td>
<td>.293</td>
<td></td>
</tr>
</tbody>
</table>

4.1.3 PMO Governance

Figure 3 represents the governance structure surrounding the Geospatial PMO. Please refer to the CS/TA for descriptions of PMO constituents, members, and responsibilities.
4.1.4 Relationship of the PMO
The Geospatial PMO is responsible for supporting the FGDC Coordination Group in Federal execution of the LoB, therefore its relationship is with internal stakeholders as follows:

- The PMO is established under DOI, which has been designated as the Managing Partner Agency for the Geospatial LoB by The Office of Management and Budget (OMB). DOI will submit the business case, which includes member agency funding contributions for the PMO. DOI will also provide space, facilities, administrative, management, legal, and contracting support for the PMO through the FGDC Secretariat within the USGS National Geospatial Program Office (NGPO).
- The PMO will provide management and operational support to the FGDC Steering Committee and FGDC Coordination Group – made up of Federal employees working towards achieving the common solutions.

4.1.5 Policy
The PMO will support the development of common process/change management guidance and templates for the FGDC Coordination Group and stakeholder agencies for review, selection and implementation. The PMO will refine and facilitate organizational governance processes where appropriate.

4.2 Planning and Investment Strategy
Planning and investment strategy solutions will result in more coordinated budget planning and cost avoidance strategies for the Geospatial LoB. For the Geospatial PMO, this includes business requirements planning and cross-agency investment strategies designed to aggregate requirements wherever appropriate, reduce unnecessary capability and acquisition redundancies, and coordinate and manage nationally significant data and services as a federal portfolio. As a transitional support activity, the Managing Partner is currently developing a Geospatial LoB Business Requirements Planning Strategy (BRS). This BRS will serve as a baseline from which the FGDC Coordination Group can begin its planning and investment strategy development process during LoB execution.

4.2.1 Business Requirements Implementation
The PMO will assist the FGDC Coordination Group in the development and implementation of a Business Requirements Plan (BRP). Key to this activity is the execution of the OMB 2007 Budget Data Request (BDR), and OMB Circular A-16 data steward compliance with FY 2008 budget guidance to submit their plans to develop further the NSDI. Through a properly constructed BDR that highlights priority geospatial data and service capability requirements; coupled with quality analysis of data steward NSDI development strategies, collective strategies can be assessed for their degree of support for LoB
priorities, ultimately leading to more informed decisions regarding business requirements necessary to develop effectively the NSDI.

4.2.2 Coordinating Geospatial Expenditures
The FY 2009 Geospatial LoB Exhibit-300 will leverage the common definitions and findings of the 2007 BDR to develop cross-agency investment strategies that better coordinate geospatial expenditures to reduce or avoid unnecessary costs. The PMO will facilitate the coordination of geospatial acquisitions by working with the General Services Administration (GSA) to develop and implement geospatial requirements language for Federal contracts (FAR, DFAR), and potentially establish, or more effectively use, government-wide contracting vehicles and licensing agreements to satisfy requirements in a more coordinated way. In addition, the LoB intends to better track geospatial expenditures by establishing a cross-agency geospatial budget-coding scheme. This common coding scheme will fill a capability gap by establishing a mechanism to more accurately identify geospatial components of agency data and services investments.

4.2.3 Portfolio Management
The PMO will support the FGDC Coordination Group in the development and implementation of a Portfolio Management Plan (PfMP). This will be accomplished by managing nationally significant data as a Federal portfolio wherever common business requirements exist. The PfMP will assist the FGDC Coordination Group and the PMO in providing an ongoing, consistent, stakeholder driven business process for the development, maintenance, and updating all nationally significant data sets. Effective support of FGDC Coordination Group development activities in the areas of performance management as well as business requirements planning and investment strategies will result in an effective LoB portfolio management capability.

Planning and Investment Strategy cost and schedule performance factors are outlined in Table 2.

<table>
<thead>
<tr>
<th>Solution Track</th>
<th>Outcome</th>
<th>Milestones</th>
<th>Exhibit 300 Schedule</th>
<th>Exhibit 300 Contract Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and Investment Strategies</td>
<td>Aggregate Common Requirements</td>
<td>Business Requirements Strategy</td>
<td>12/31/07</td>
<td>.248</td>
</tr>
<tr>
<td>Reduce Unnecessary Redundancies</td>
<td>Business Requirements Plan</td>
<td></td>
<td>02/01/08</td>
<td>.067</td>
</tr>
</tbody>
</table>
### 4.3 Optimize and Standardize

The optimization and standardization of geospatial data and services utilizes known best practices and open standards to establish widespread, shared and re-useable geospatial asset discovery, access/delivery, analysis, training, and brokering services. It also includes mechanisms to standardize agency approaches to geospatial business, technology, services, and data. For this segment of strategic activities, the outcome will be a shared resource for geospatial business data and services.

The PMO will work with the government stakeholders and the FGDC Coordination Group to reduce unnecessary redundancies of geospatial requirements by defining and clarifying the Geospatial LoB resource requirements. This will be accomplished by establishing an LoB-wide business architecture for common BRM sub functions associated with geospatial and business information as roadmap for communities of interest (COI’s) and sharing implementation guidance and deployments.

The PMO will support the efforts to geo-enable business and operational data by establishing georeferencing services. This will be accomplished by implementing SLAs/ELAs to facilitate secure geospatial information sharing for rapid access and retrieval of existing geospatial information from reliable government repositories or commercial sources. The PMO will also facilitate the establishment of requirements for posting metadata (data and services) as publicly available for search prior to being able to publish to Federal repository catalogs.

The PMO will work with the FGDC Coordination Group to develop shared geospatial services and assets by identifying and implementing interoperability standards and best practices. This will be accomplished by establishing Federal-wide hardware and software configuration management and performance specifications for data access (e.g. map, web feature and coverage/raster) services, both on the hosting and receiving ends.
The PMO will support the establishment of, and the point of contact for providing stakeholders discovery and access to brokering services, which can be used to enhance Geospatial One-Stop (GOS) and other related government-wide tools. This will be accomplished by providing a broker service for data searching among agencies (peer to peer, service to service) which will build on and improve existing systems. Successful efforts to optimize and standardize geospatial business data and services for shared use will be critical milestones for the Geospatial LoB, but FY 2007 and 2008 PMO efforts will be focused on, and funded for, solution development activities related to enhanced governance and performance accountability as well as business requirements planning and investment strategies. For this reason, specific cost and schedule performance factors are not provided at this time.

5 OPERATIONAL SUPPORT ACTIVITIES

The Geospatial PMO has been identified as a necessary support organization intended to increase the capability of the LoB to provide value for its constituents. Operational activities will be designed to achieve this outcome through self-sustaining operations that assist the FGDC Coordination Group in the development of the common solutions and the FGDC Secretariat in the management and overall effectiveness of the LoB. Sound program and risk management practices as well as effective outreach and communications are necessary support functions that will be immediately established upon the LoB entering the execution phase. Strategic elements of operational support will be measured for effectiveness by identifying metrics and architecting processes to obtain performance information across this dimension. The Reporting and Compliance section of this ConOps further details this operational performance measurement approach.

5.1 Outreach and Communications

Effective outreach and communications are necessary to ensure that strategic focus of the LoB is maintained, that stakeholders are aware of the initiatives plans and current activities, and that the role and responsibilities of the PMO are clearly understood and accepted by LoB stakeholders. With input form the FGDC Coordination Group, the PMO will execute the Geospatial LoB PMO Outreach and Communications Strategy (OCS) that has been developed by the Managing Partner as a transitional support activity. This OCS includes the development of a written and oral communications plan for stakeholder audiences, including website, informational brochures, formal and informal presentations, newsletters, etc.

The PMO is responsible for maintaining a common repository for project information and deliverables including templates, reports, documents, and other information. PMO staff will lead the effort to collect lessons learned and develop best practices for use by the FGDC Coordination Group, customer agencies,
and other stakeholders. In addition, with input from stakeholders, the PMO will develop processes and procedures for knowledge management contributors and users, ensuring that strategic focus is maintained, and expected agency benefits are clear.

### 5.2 Risk Management

Geospatial LoB execution introduces a high degree of uncertainty and associated risks. This uncertainty and risk is vast in scope and complexity, requiring the development of a risk management capability that is proactive, properly focused, and provides continuous threat identification and risk remediation activities, to mitigate the affects of unacceptable risks that, if they occur, would impact the PMOs capability to meet the requirements of its intended purpose. As a transitional support activity, the Managing Partner developed a Geospatial LoB PMO Risk Management Strategy (RMS) that details risk management activities that must be performed through standard operating procedures in a continuous manner. The PMO will be focused on mitigating risks to it’s capability to add value for multiple stakeholder needs that span multiple dimensions. For this reason, as illustrated in Figure 4, the RMS leverages the same organizing framework as found in this OCS.

#### 5.2.1 Risk Identification –

The Geospatial LoB PMO must search for and identify threats before they become risks that may impact the ability of the Geospatial LoB to achieve its mission. A comprehensive set of risks, including the LoB’s risk tolerance for each, must be identified in the development of the June 1, 2008 Geospatial LoB Risk Management Plan (RMP).

![Figure 4 Risk Management Organizing Framework](image-url)
5.2.2 Risk Assessment –
Once threats and risks have been identified, the Geospatial LoB PMO must analyze the risks in order to transform the risk data into decision-making information for the FGDC Secretariat. Evaluating the potential impact on the risk mission and assessing the probability and timeframe of occurrence are necessary steps in order to prioritize risks identified by the PMO.

5.2.2.1 Qualitative Analysis -
Important qualitative assessment factors include the probability of the risk occurring and impact of the risk on the project. This qualitative analysis is typically performed when hard data is lacking and subjective estimations must be made.

5.2.2.2 Quantitative Analysis -
Quantitative analysis can be initiated by PMO personnel to provide more detailed information on the effect risk can have on LoB execution. By gathering data on how each prioritized risk can increase cost, scope, or schedule, risks can be brought to the attention of the FGDC Secretariat for response and reporting purposes.

5.2.3 Risk Response –
When risk identification, assessment, and prioritization information presents the need for mitigating activity, the Geospatial LoB PMO must respond in alignment with pre-defined risk mitigation actions identified in the LoB RMP SOPs. These pre-defined actions must include process and procedures for PMO personnel to alert the FGDC Secretariat that a risk tolerance level has been exceeded. These processes and procedures should also include actions required to mitigate unacceptable risks, avoid the risk by changing direction, accept the risk and the consequences if the risk occurs, or study the risk further to acquire more information and better determine the characteristics of the risk to enable decision-making.

5.2.4 Risk Monitoring and Control –
Using questionnaires structured around strategic risk categories to conduct routine interviews, the Geospatial LoB PMO must continuously capture metrics that drive risk indicators and trigger the need for the FGDC Secretariat to make informed decisions regarding risk mitigation, avoidance, acceptance, or the need for further study activities. This questionnaire must be included within the LoB RMP.

5.2.5 Risk Reporting –
Leveraging the outputs of risk monitoring and control activities, the Geospatial LoB PMO must report unacceptable deviations from remediation plans to the FGDC Secretariat. Risk mitigation

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recommendations can then be outlined by the Geospatial LoB PMO and reported to internal and external stakeholders.

6 REPORTING & COMPLIANCE SUPPORT ACTIVITIES

The PMO manages status reporting, which includes collecting information from the FGDC Coordination Group and agency customers, as well as aggregating and reporting to stakeholders.

The LoB must ensure that participating agencies are aligning their activities to the LoB initiative where appropriate. To do so, metrics must be obtained by the PMO that allow the LoB to track and report on these factors. It is expected that OMB will be heavily focused on obtaining outcome-oriented metrics, therefore the PMO must assist the Managing Partner in developing robust performance reporting capabilities.

6.1 Programmatic Reporting

Programmatic reporting will require the PMO to provide planned performance baseline improvements for each Geospatial LoB mission and strategic goal in alignment with the Federal Enterprise Architecture (FEA) Performance Reference Model (PRM) measurement guidance and established goals in the Exhibit 300, Part I, Section D, Table 2. In addition to performance baseline improvement reporting, the PMO will be required to report on cost and schedule performance variances for each program milestone detailed in the Exhibit 300, Part IV, Section C, Table 9.

6.2 Customer Satisfaction

Customer satisfaction reporting will require the PMO to report on outcome-oriented metrics, reflective of customer-centric results, to ensure that as the common solutions are developed, they have the expected performance impact on the LoB and result in customer value.

6.3 Adoption and Participation

The PMO will be required to measure and report on the degree to which the relevant community (agencies, bureaus, other organizations) participates in the initiative, and the extent of that participation as demonstrated by contribution of information, involvement in governance, and other means.

6.4 Usage

Measuring participating agency participation is important but if common solutions developed to realize the strategic vision, goals, and objectives of the LoB are not sufficiently used by the targeted end users, value is not being created and outcome expectations will not be realized. The PMO will be required to report on LoB performance from a usage perspective.
6.5 Compliance

The PMO must assist the FGDC Coordination Group in ensuring that participating agencies are aligning their activities to the LoB initiative where appropriate. To do so, metrics must be obtained by the PMO that allow the LoB to track and report on these factors. Tracking performance from this perspective is critical as it (more than any other) is on the critical path of measuring performance outcomes versus JBC cost and schedule and PMO internal operations.

7 STAKEHOLDERS AND TASKS

The following table indicates the major tasks and stakeholders for the Geospatial LoB by planned fiscal year.

<table>
<thead>
<tr>
<th>Function/Service</th>
<th>Phase</th>
<th>Agency</th>
<th>FGDC</th>
<th>GEO PMO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Stakeholders</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Agency</td>
<td>FGDC</td>
</tr>
<tr>
<td>Beginning in FY 2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finalize ConOps Document for the Geospatial LoB</td>
<td>Planning</td>
<td>USGS</td>
<td>Coordination Group</td>
<td>Manager Staff</td>
</tr>
<tr>
<td>Establish GEO PMO</td>
<td>Planning</td>
<td>USGS</td>
<td>Coordination Group</td>
<td>Manager Staff</td>
</tr>
<tr>
<td>Establish Governance Board and Charters</td>
<td>Planning</td>
<td>USGS</td>
<td>Coordination Group</td>
<td>Manager Staff</td>
</tr>
<tr>
<td>Develop Outreach and Communication Plan</td>
<td>Planning</td>
<td>USGS</td>
<td>Coordination Group</td>
<td>Manager Staff</td>
</tr>
<tr>
<td>Project Life-cycle Activities (Scope, Risk, Schedule, Staffing, etc.)</td>
<td>Operational</td>
<td></td>
<td>Secretariat</td>
<td>Manager Business Requirements Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Investment Coordinator</td>
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<td></td>
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<td></td>
<td></td>
<td>Architect</td>
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<td></td>
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<td></td>
<td></td>
<td>Staff</td>
</tr>
<tr>
<td>Function/Service</td>
<td>Phase</td>
<td>Stakeholders</td>
<td>Agency</td>
<td>FGDC</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>---------</td>
<td>-------------------------</td>
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<td>------------</td>
</tr>
<tr>
<td>Assess guidance (A-16/12906/A-130 and A-11/FAR/ICRs) and Geospatial LoB objectives alignment. Recommend revisions where appropriate</td>
<td>Planning</td>
<td>Participating Agencies</td>
<td>Coordination Group</td>
<td>Manager Staff</td>
</tr>
<tr>
<td>Develop and implement common grants language for geospatial information and services</td>
<td>Operational</td>
<td>Grants Policy Committee</td>
<td>Secretariat</td>
<td>Manager Staff</td>
</tr>
<tr>
<td>Establish roles and responsibilities of designated geospatial agency official to include internal and external activities</td>
<td>Planning</td>
<td>Participating Agencies</td>
<td>Coordination Group</td>
<td>Manager Staff</td>
</tr>
<tr>
<td>Develop and implement a common set of geospatial investment definitions</td>
<td>Operational</td>
<td>Participating Agencies</td>
<td>Coordination Group</td>
<td>Investment Coordinator Staff</td>
</tr>
<tr>
<td>Develop and implement geospatial requirements language for Federal contracts (FAR, DFAR)</td>
<td>Operational</td>
<td>GSA</td>
<td>Secretariat</td>
<td>Acquisition Coordinator Staff</td>
</tr>
<tr>
<td>Clarify data steward lifecycle responsibilities and performance measures for Nationally/Federally significant datasets</td>
<td>Planning</td>
<td>Participating Agencies</td>
<td>Coordination Group</td>
<td>Manager Business Requirements Coordinator Staff</td>
</tr>
<tr>
<td>Develop sustainable funding strategy for collaboration with state, local, and tribal government counterparts</td>
<td>Operational</td>
<td>Participating Agencies</td>
<td>Coordination Group</td>
<td>Manager Investment Coordinator Staff</td>
</tr>
<tr>
<td>Expand smart-buy (and alternatives) efforts for geospatial data and technologies and consider shared licenses for smaller agencies which could be managed by a designated agency</td>
<td>Operational</td>
<td>GSA Participating Agencies</td>
<td>Coordination Group</td>
<td>Acquisition Coordinator Staff</td>
</tr>
<tr>
<td>Function/Service</td>
<td>Phase</td>
<td>Stakeholders</td>
<td></td>
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<tr>
<td>---------------------------------------------------------------------------------</td>
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<td>-----------------------------------------------------------------------------</td>
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<td></td>
</tr>
<tr>
<td><strong>Expand cross government licensing efforts and increase outreach to smaller agencies</strong></td>
<td>Operational</td>
<td>Participating Agencies Coordination Group Acquisition Coordinator Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Establish an LoB-wide business architecture for common BRM sub functions associated with geospatial and business information as roadmap for COIs. Share implementation guidance and deployments</strong></td>
<td>Operational</td>
<td>Participating Agencies Coordination Group Business Requirements Coordinator Investment Coordinator Architect Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Provide an ongoing, consistent, stakeholder driven business process for the development, maintenance, and updating all nationally significant data sets</strong></td>
<td>Operational</td>
<td>Participating Agencies Coordination Group Architect</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Manage nationally significant data as a Federal portfolio wherever common business requirements exist</strong></td>
<td>Operational</td>
<td>Participating Agencies Coordination Group Manager Business Requirements Coordinator Investment Coordinator Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Recommend enhanced reporting mechanisms (300/53/nonIT Data) to reduce reporting burdens on Federal agencies</strong></td>
<td>Planning</td>
<td>Participating Agencies Coordination Group Investment Coordinator Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Develop enhanced tools for the geospatial business planning process and/or exploit existing tools</strong></td>
<td>Planning</td>
<td>Participating Agencies Coordination Group Business Requirements Coordinator Architect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function/Service</td>
<td>Phase</td>
<td>Stakeholders</td>
<td>Agency</td>
<td>FGDC</td>
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<td>Develop Federal-wide Communities of Interest (COI) around BRM Lines of Business and associated functions and sub functions. Mapping of geo portfolio to the various LoB portfolios</td>
<td>Planning</td>
<td>Participating Agencies</td>
<td>Coordination Group</td>
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<td><strong>Beginning in FY 2008</strong></td>
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<tr>
<td>Clarify data steward life-cycle responsibilities and performance measures for Nationally/Federally significant datasets</td>
<td>Planning</td>
<td>Participating Agencies SAOGIs</td>
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<td>Establish more coordinated and collaborative development and funding partnerships between National and local data producers and consumers for nationally significant data sets</td>
<td>Operational</td>
<td>FEA PMO</td>
<td>Secretariat</td>
<td>Manager</td>
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<tr>
<td>Implement SLAs/ELAs to facilitate secure geospatial information sharing for rapid access and retrieval of existing geospatial information from reliable government repositories or commercial sources</td>
<td>Operational</td>
<td>Participating Agencies</td>
<td>Coordination Group</td>
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<td>Establish requirements for posting metadata (data and services) as publicly available for search prior to being able to publish to federal repository catalogs</td>
<td>Planning</td>
<td>Participating Agencies</td>
<td>Coordination Group</td>
<td>Manager</td>
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<td>Function/Service</td>
<td>Phase</td>
<td>Stakeholders</td>
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<td>Develop requirements and make recommendations to CIO Council to ensure Federal –wide support for the technology and telecommunications infrastructure required to deliver geospatial services</td>
<td>Planning</td>
<td>IOI LoB Participating Agencies Coordination Group Architect Staff</td>
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<td>Establish a Federal-wide H/W-S/W configuration management and performance specification for data access (e.g. map, web feature and coverage/raster) services, both on the hosting and receiving ends</td>
<td>Operational</td>
<td>Participating Agencies Coordination Group Architect Staff</td>
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<td>Establish cross-federal portfolio requirements for nationally-significant data</td>
<td>Operational</td>
<td>Participating Agencies Coordination Group Manager Business Requirements Coordinator Investment Coordinator Staff</td>
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<td>Evaluate the nine stages of the lifecycle and identify common optimal (mature) services and perform cost-benefit and ROI for shared services</td>
<td>Planning</td>
<td>Participating Agencies SAOGIs CIOs Coordination Group Business Requirements Coordinator Investment Coordinator</td>
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</table>

**Beginning in FY 2008**

<p>| Develop a cross-agency investment strategy for non-geospatial data management - geo-enabling the business | Operational | Participating Agencies Coordination Group Manager Business Requirements Coordinator Investment Coordinator |</p>
<table>
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<tr>
<th>Function/Service</th>
<th>Phase</th>
<th>Stakeholders</th>
</tr>
</thead>
</table>
| Provide a broker service for data searching among agencies (peer to peer, service to service) which will build on and improve existing systems | Operational | Agency: Participating Agencies  
FGDC: Coordination Group  
GEO PMO: Manager Business Requirements Coordinator Staff |
| Conduct pilots to assess the geo-enabling of information exchange networks among federal and partner networks | Operational | Agency: Participating Agencies  
FGDC: Coordination Group  
GEO PMO: Staff |
| Develop outreach programs for program managers and architects to demonstrate the value of “place based” approaches and geospatial technology to achieving mission goals | Operational | Agency: Participating Agencies  
FGDC: Coordination Group  
GEO PMO: Manager Staff |
Figure A1: Common Solutions Overview

How
The National Geospatial Advisory Council (FACA)

What
Provide advice and recommendations on national geospatial policies and priorities

Outcome
Enhanced Performance, Accountability & Compliance Mechanisms

Agencies
FGDC
Geospatial LoB PMO

Designated Data Stewards
Ensure responsibility & accountability for key datasets

FGDC Steering Committee
Provide executive leadership
Sr. Agency Official for Geospatial Information (SAOGI)

How
Implement Cross-Agency Standardization and Investment Strategies

What
Business Requirements Planning

Outcome
Coordinated budget planning & cost avoidance

Who
PMO

Coordinate Acquisition
Track Geospatial Expenditures

Develop Geospatial Budget Coding Structure

Implement NSDI Performance Management

How
Establish BPAs and leverage SmartBuy for high priority data and services

Outcome
Coordinate budget planning & cost avoidance

What
Business Requirements Planning

Who
PMO

Outcome
Shared Geo Business Data and Services

Who
PMO

How
Define Geospatial LoB Resource Requirements

What
Reduce Unnecessary Redundancies

Outcome
Shared Geo Business Data and Services

Who
PMO

Define Geospatial LoB Resource Requirements

What
Reduce Unnecessary Redundancies

Outcome
Shared Geo Business Data and Services

Who
PMO

Enhance GOS and Related Government-wide Tools

Develop & Execute Portfolio Management Strategy

Implement Government-wide Geospatial Portfolio Management

Identify and Implement Interoperability Standards & Best Practices

Geo-erasable Business & Operational Data

Establish Geo-reference Services

Provide Discovery & Access Brokering Services

Geo-enable Business & Operational Data

Ensure Geo-reference Services

Provide Discovery & Access Brokering Services

Enhance GOS and Related Government-wide Tools

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Outcome
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Shared Geo Business Data and Services

Who
PMO

How
Define Geospatial LoB Resource Requirements

What
Reduce Unnecessary Redundancies

Outcome
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Enhance GOS and Related Government-wide Tools

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Geo-enable Business & Operational Data

Ensure Geo-reference Services

Provide Discovery & Access Brokering Services

Enhance GOS and Related Government-wide Tools
Figure A2: Concept of Operations Workflow

Stakeholders
- Business Alignment
- Prioritization
- Optimization

Policy & Mandates
- Stewardship
- Portfolio Management
- Outreach / Collaboration

Budget Guidance
- Monitor, Assess, Business Planning, Performance Management

Mediated Access
- Requirements (Explicit)
- Need (Implicit)

Governance
- Charters, Requirements, Standards, MOUs
- SLAs
- Partnerships
- Budget
- CRADA

Asset Management
- Implementation Planning

Information Assets, Knowledge
- Manage

Services
- Find
- Acquire
- Publish

Geospatial Asset
- Manage

Consumer
- Utilize
- Visualize

Improved Mission and Decision Support

Provider
- Data Flow
- Control Flow

Provider
- Contract