

**STRATEGY MARKUP
LANGUAGE VALUE
PROPOSITION**

***Strategy Markup Language
Community of Practice***

April 18, 2006

STRATEGY MARKUP LANGUAGE VALUE PROPOSITION

EXECUTIVE SUMMARY

A group of government and industry partners, collectively known as the Strategy Markup Language (StratML) Community of Practice (CoP), proposes to develop a framework by which Federal agency strategic management portfolios -- strategic plans, performance plans, and performance reports -- are created, structured, shared, and accessed by stakeholders.

The primary output of the StratML CoP will be a vocabulary and template (i.e., a schema based upon Extensible Markup Language, XML) for use by government agencies. In addition, efforts will be made to engage the relevant standards development organizations with the objective of establishing the vocabulary and schema as an international voluntary consensus standard.

StratML will standardize the expression of government strategic goals and objectives making such statements "citizen-centered." Citizens, as the primary stakeholders, would no longer have to contend with and translate differing terms used by different agencies to describe the same strategic planning and performance concepts. Also, in combination with good data modeling within the context of the Federal Enterprise Architecture (FEA) Data Reference Model (DRM), the practice of providing standard XML vocabularies and schemas for data could be leveraged for myriad other purposes.

Ultimately, this effort will result in:

1. Decreased time and resource commitment from Federal agencies;
2. The collection and reporting of strategic results based on a set of strategic themes such as the President's Management Agenda (PMA) and Line of Business (LOB) strategic agenda;
3. Mapping of actions to strategic goals and objectives;
4. The enhanced application of content for reporting and research; and
5. More efficient and intuitive search and discovery of strategic plans, actions, and records, as well as potentially sharable services and strategic alignments.

The StratML CoP is seeking endorsement from the Office of Management and Budget (OMB), the Chief Information Officers Council (CIOC), the Chief Financial Officers Council (CFOC), and appropriate Congressional committees to commence work on Phase 1 of the pilot project as defined below.

DEFINITIONS

For the purpose of this paper, the following terms are defined for clarity:

- *Strategy Markup Language (StratML)*: An XML vocabulary and XML schema for Federal agency strategic management portfolios (and potentially for use by organizations worldwide, as an international voluntary consensus standard).
- *Community of Practice (CoP)*: A group coalescing around collaborative action in pursuit of a common, measurable objective.
- *Strategic Management Portfolio*: An agency's strategic plan, performance plan, and performance report.
- *Strategic Plan*: A document used by an organization to align its organization and budget structure with organizational priorities, missions, and objectives.
- *Performance Plan*: Companion document to a strategic plan that outlines an organization's annual performance goals, resource utilization, and performance indicators.
- *Performance Report*: Companion document to performance plan that reports an organization's program performance for the previous year.
- *Extensible Markup Language (XML)*: An international voluntary consensus standard for information formatting that provides a flexible way to share data across organizations without regard to proprietary constraints associated with any particular information system, product, or technology.
- *XML Schema*: A description of an XML document that defines vocabularies, structure, and rules by which elements within an information set are interrelated and against which validity (conformance) can automatically be determined.
- *Strategic Themes*: Value propositions that define the cause-and-effect relationships linking objectives, measures, and initiatives across multiple strategic perspectives.

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BACKGROUND

Strategic management is essential for effective organizational performance. This fundamental business principle is universally accepted, if not practiced, in both the public and private sectors. Strategic management requires the clear expression of an organization's vision, goals, objectives, and stakeholders, a plan to allocate available resources, and an understanding of how the decision-making process will be conducted to determine priorities.

The Federal government has instituted legal and regulatory requirements upon agencies to develop, maintain, report, and deliver on goals and objectives set forth in their strategic plans. The Government Performance and Results Act of 1993 (GPRA) requires agencies to develop strategic plans, performance plans, and performance reports that outline their goals and progress on initiatives. Similarly, the Paperwork Reduction Act (PRA) requires federal agencies to develop and maintain Information Resources Management (IRM) strategic plans that align its information technology (IT) resources with its business strategies and investment decisions. The expectation is that the plans provide a roadmap for agencies to accomplish their mission specific goals and that the subsequent reports summarize their progress to OMB, Congress, and citizens.

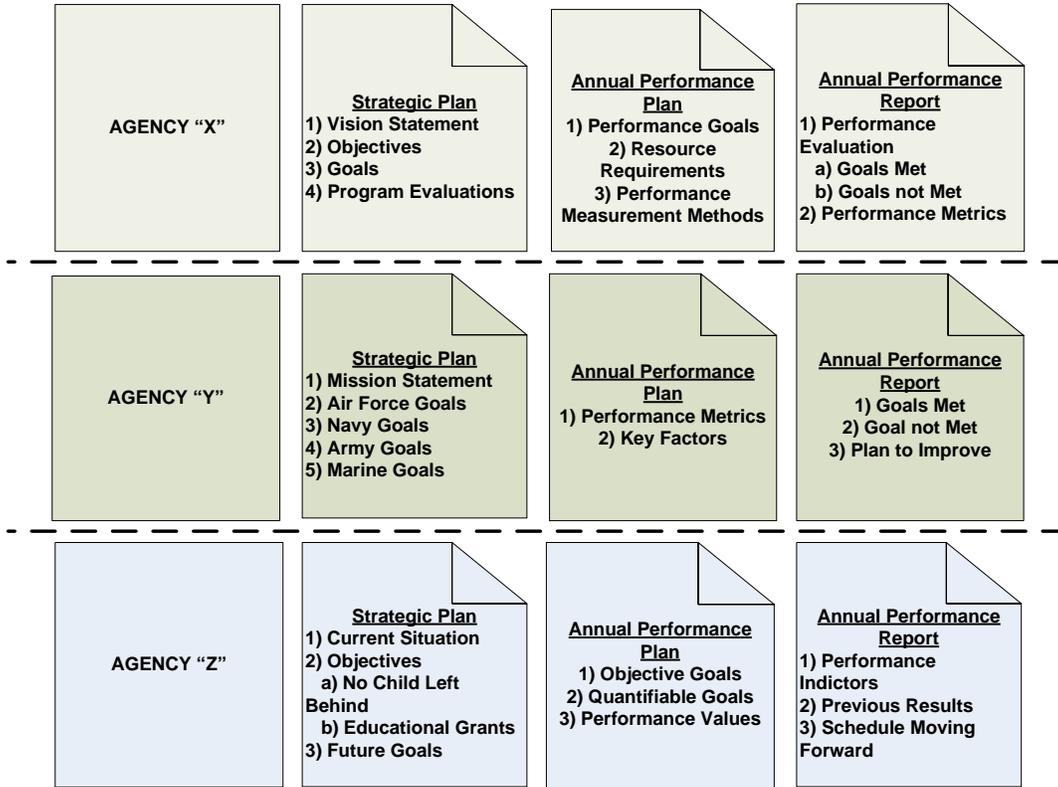
In order for strategic goals and objectives to be effectively communicated and pursued in a consistent, repeatable manner, a common language is required. The vernacular must span the entire strategic management portfolio, including defining cause-and-effect relationships among strategic themes. Ultimately this understanding leads to strategic accountability and governance that assists organizations in achieving, measuring, and reporting their results.

Strategic management portfolios are currently developed independently by agencies with no adherence to a common structure. Most often, plans are isolated in proprietary systems and formats that cannot be readily shared, and are developed using an agency specific lexicon for generic management terms. For example, the Department X may define its overall purpose as a "vision statement" while the Department Y defines the same term as a "mission statement." While this approach suits the focused needs for individual agencies, it does not lend itself to effective cross agency information gathering, sharing, and analysis. In addition, the lack of a standardized process impairs the government's ability to effectively focus on serving the needs of American citizens. **Figure 1** portrays an example of the current state of the disparate structure of strategic management portfolio documents of Federal agencies.

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Figure 1: Strategic Management Portfolio - Current State

Agencies develop strategic plans, annual performance plans, and annual performance reports per GPRA requirements. Plans are developed individually by each agency using their own terminology and structure. Agencies submit plans to OMB and Congress for review and results are reported to the general public.



The Government Accountability Office (GAO) has cited numerous instances of the overall benefits of strategic planning being thwarted by the inability of agencies to effectively develop and link performance to goals and objectives. *GAO Information Technology Management: Government-wide Strategic Planning, Performance Measurement, and Investment Management Can Be Further Improved (GAO-04-49)* notes that the IT strategic management process and performance measurement practices are often not linked, thus increasing the risk that investments will fail to achieve the desired cost, benefits, and scheduled results. Similarly, GAO has found that many agencies either don't develop or do a poor job of developing strategic plans (e.g., *GAO-05-77, GAO-06-290, GAO-06-19, and GAO-03-472*). StratML would enable Federal agencies, OMB, and Congress to have a more intuitive and efficient process for developing, reviewing, reporting and analyzing strategic goals, objectives, and results.

VALUE PROPOSITION

Technological advances of the past quarter century have improved the way in which organizations function. Legislation such as the Electronic Government Act of 2002 (eGov Act) have leveraged hi-tech capabilities to improve the way government information is created, shared and utilized for a variety of purposes not previously available. However, untapped opportunities remain to further enhance the potential of technology to bridge the gap between sources of information and those who need it to make timely, well-informed decisions.

A standardized vocabulary and schema enabling all Federal agencies to share their goals and objectives with employees, strategic partners, and other stakeholders, including American citizens, would vastly improve the process by which agency strategic management portfolios are developed and used. An open-standard environment adhering to government guidelines would streamline workflow processes, and ensure content consistency and reusability in a multi-channel dissemination environment. It would also eliminate the use of proprietary formats to develop strategic management portfolio information.

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StratML will be a standardized XML vocabulary and schema for Federal agency strategic plans, performance plans, and performance reports that leverages existing standards and aligns to the Federal Enterprise Architecture (FEA) and government policy. StratML will provide numerous benefits. For example, it will:

- Standardize the structure of the strategic management portfolio.
- Utilize computer processing capabilities to allow for the precise search and discovery of strategic plans and performance outcomes.
- Ease human analysis of strategic management plans allowing for quick retrieval, analysis, and cross referencing to identify explicit relationships and indirect relationships.
- Improve the writing and editorial process of strategic plans, performance plans, and performance reports including individual goal, objective, and performance statements.
- Expand the dissemination opportunities of strategic plans. StratML would enable the same content to be presented across different formats (Web pages, printed pages, or other delivery media) without changing the underlying content.
- Use a system independent industry standard (XML) for the sharing data and information across systems and organizations.
- Facilitate and standardize means for agencies to meet legal requirements.

Figure 2 outlines additional benefits that StratML would provide to various stakeholder groups, while **Figure 3** summarizes the future state of the strategic management portfolio if StratML were developed.

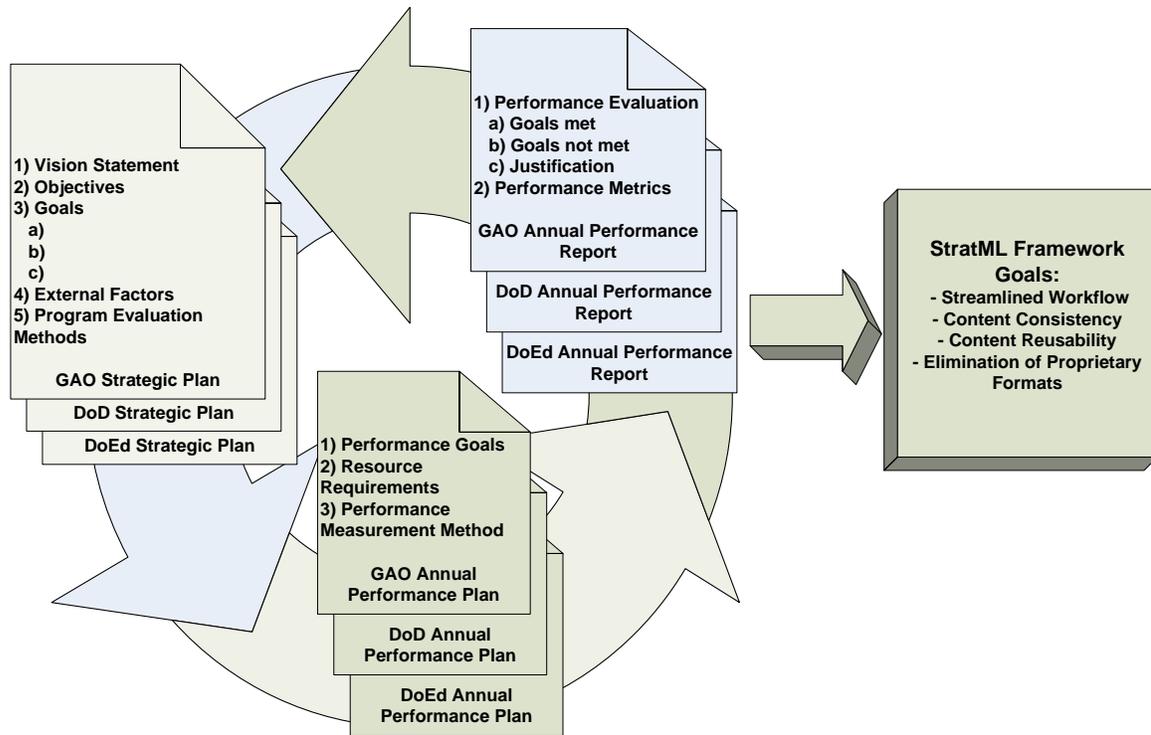
Figure 2: StratML Benefits to Stakeholders

<p>Shared benefits to all Stakeholders (Federal agencies, Citizens, Industry)</p> <ul style="list-style-type: none"> - Provides consistent framework for strategic plans across the Federal government <ul style="list-style-type: none"> - Improved accessibility - Enhanced information/data transfer capabilities - Standard "template" for document development - Improved search and discovery - Supports and adheres to legislation in a standardized manner <ul style="list-style-type: none"> - Eases analysis of strategic plans and budgetary information <ul style="list-style-type: none"> - Allows for multi-format presentation - Easy to use and update - Decreases development time - Decreases resource commitment - Accelerates the editorial review process - Utilizes standards-based technology 			
<p>Office of Management and Budget (OMB)</p> <ul style="list-style-type: none"> - Supports the President's Management Agenda (PMA) by improving management practices and performance by making it more focused on citizens and results - Supports the E-Gov Act by utilizing innovative, technological methods to improve the performance of government and delivery of Government information and services - Improves analysis of strategic plans and budgetary information 	<p>Federal Enterprise Architecture Program Management Office (FEA PMO)</p> <ul style="list-style-type: none"> - Enables the aggregation of information across the federal government - Provides consistent and accurate strategic plans as a driver for the Federal Target Architecture and agency target architectures - Serves as a real world test scenario for the FEA Data Reference Model (DRM) following principles on the standardization and harmonization of data - Validates the FEA Performance Reference Model (PRM) as a measure to enhance performance information to improve strategic and daily decision-making. 	<p>Chief Information Officers (CIOs)</p> <ul style="list-style-type: none"> - Supports mandates outlined in the Clinger-Cohen Act (CCA) directing agency CIO's to work together to use information technology to assist Federal programs within an interoperable, secure, and shared government-wide information resources infrastructure. 	<p>Chief Financial Officers (CFOs)</p> <ul style="list-style-type: none"> - Assists the budget formulation process. - Enables the tracking of strategic initiatives to specific projects and outcomes.

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Figure 3: Strategic Management Portfolio - Proposed State

Strategic plans, annual performance plans, and annual performance reports are collectively developed using a CIO-C and CFO-C endorsed framework. The plans are inherently linked due to standardized vocabulary and defined relationships between elements. Agencies submit plans to OMB and Congress for review and results are reported to the general public.



THE PROPOSAL

It is proposed that the CFOC, CIOC, OMB, and Congress committees work collaboratively to support the development and adoption of a voluntary, international consensus standard known as StratML. StratML would be developed, vetted, and tested with a CoP composed of volunteers from both the public and private sectors. Due to this voluntary nature, the StratML CoP would not request any funds from any supporting organization. Similarly, it is anticipated that StratML would have a minimal monetary impact on agencies. Potential agency costs would be limited to XML software (that they may already use) and the training of workforce. The primary role of the CFOC, CIOC, OMB, and Congress committees would be to review and verify documentation and, ultimately, endorse StratML for use by Federal agencies.

The final deliverable of the StratML CoP would be a XML vocabulary and XML schema for the strategic management portfolio. The vocabulary and schema will be produced in logically separable components, each of which will extend and add incremental value to the initial, core set. The StratML CoP objectives are to:

1. Identify a relatively small set of core elements that are common to all strategic management portfolio plans;
2. Build consensus within the StratML CoP on the semantics (names and definitions) of such elements;
3. Render, pilot, and test an XML vocabulary and XML schema with all interested parties;
4. Validate the XML schema against existing government policy and related standards;
5. Advance the XML schema for government-wide usage and for the establishment as an international standard through a recognized voluntary consensus standards organization;
6. Test and validate the XML CoP's (a subcommittee of the CIOC) *Federal XML Naming and Design Rules and Guidelines (NDRG)*; and
7. Test and validate the FEA DRM.

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The StratML CoP will utilize a phased approach to develop StratML. Phase 1 of the project will focus on the development of an XML vocabulary of common terms used in IRM strategic plans, and the creation of an XML schema encompassing those elements. Vetting and validation of vocabulary and schema will be conducted with all stakeholders followed by a pilot test with a select agency. This phase would directly support *OMB Memorandum M-06-02: Improving Public Access to and Dissemination of Government Information and Using the Federal Enterprise Architecture Data Reference Model*. Phase 2 would take a similar approach and utilize the lessons learned in Phase 1 to encompass terms used for agency strategic plans, performance plans, and performance reports that agencies are required to compile and maintain under GPRA.

Conceivably, the StratML CoP, in coordination with the CIOC and CFOC, could develop a user guide for agency implementation as a government best practice. Additionally, OMB or Congress may choose to require agencies to use StratML like other standardization taxonomies, vocabularies, and tools such as the FEA or the Performance Assessment Rating Tool (PART). Hopefully, agencies will choose to do so themselves by virtue of understanding the benefits and having the opportunity to participate in the specification of StratML.

CONCLUSION

The success of StratML will rely on the communication and participation of numerous people and organizations. Interested persons from both the government and private sectors have already volunteered to participate with the StratML CoP, and we extend the invitation to all interested persons to participate as well. After formal approval to begin StratML, you are invited to follow the evolution of StratML and encouraged to comment on the deliverables as they are developed. A dedicated StratML collaborative workspace has been established at CORE.gov to which you are invited to register to receive progress updates and offer your feedback. You may also contact Adam Schwartz (GPO), StratML CoP Co-Chair, at aschwartz@gpo.gov or by phone at 202-512-2055 to discuss this project.

REFERENCES

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- CORE.gov, <https://collab.core.gov/CommunityBrowser.aspx>