UNITED STATES OFFICE OF PERSONNEL MANAGEMENT

Learning and Knowledge Sharing Strategy

Version 1.0

June 2011

a New Day for Federal Service

EXECUTIVE SUMMARY

The Learning and Knowledge Sharing Strategy (LKSS) describes OPM's vision to "become America's model employer for the 21st Century" and fulfill its mission of recruiting, retaining and honoring an excellent workforce to serve the American people.

Through the LKSS, we will:

- Establish a sustainable culture of learning and collaboration by primarily focusing on OPM's people and processes. We will start making this cultural shift by establishing communities of practice (CoPs) that use action learning to solve organizational problems and spread innovation.
- Stand up knowledge sharing tools as they come to be needed to support the CoPs instead of starting with a "solution."
- Tie communities of practice to succession planning and the urgent need to capture the knowledge of departing highly skilled OPM employees.
- Combine OPM's intranet – Theo – and external web site into an easily expandable, collaborative knowledge sharing platform.
- Measure the effectiveness of the LKSS in both transforming OPM and fulfilling the agency's strategic goals.

The LKSS flows from the Open Culture Plan and the Communication and Collaboration Strategy in that their shared goals fulfill the objectives of OPM's Strategic Plan to bring openness, transparency, and collaboration to the agency for the benefit of employees and the American public that we serve.

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1 INTRODUCTION

1.1 About This Document

This document describes OPM's Learning and Knowledge Sharing Strategy (LKSS). The purpose of the LKSS is to describe knowledge sharing and recommend activities that will create a learning and collaborative culture within OPM and with external stakeholders. We also discuss the supporting activities of succession planning, change management, performance management, knowledge sharing metrics, and marketing knowledge management. To realize the principles of Open Government, we need to support a culture that values and encourages learning and collaboration across all levels within OPM and with all of our stakeholders. OPM is unique in that we influence almost every Federal agency and impact American citizens simultaneously. Through the recommendations in this strategy, we can better engage our stakeholders by becoming more transparent, participatory, and collaborative through the continuous development and improvement of OPM's employees and processes.

1.2 Knowledge Management

Knowledge management (KM) facilitates the processes by which knowledge is created, shared and used in organizations. It is not necessarily about making major investments in technology and sophisticated software applications, or establishing a new office to oversee organizational KM efforts, or managing all knowledge. It is about managing the knowledge that is most important to the organization and using that knowledge in ways that allow employees to work smarter, resulting in production and/or quality improvements throughout the organization.

There are many ways of looking at KM and different organizations will take different approaches. Creating a knowledge environment usually requires changing organizational values and culture, adapting individual employees' behaviors and work patterns, and providing people with easy access to each other and to relevant information resources. By establishing communities of practice (CoPs), people who share a passion and/or interest will be able to come together in a "community" to solve problems, learn from one another, and create new knowledge. In OPM's case, this Learning and Knowledge Sharing Strategy (LKSS) will fulfill the collaboration strategies of the Communication and Collaboration Plan to bring about the cultural change described in the Open Culture Plan.

We use the term "knowledge sharing" instead of the traditional "knowledge management" because we want to emphasize that OPM will not only collect knowledge but will actively share it to gain the full advantage of the agency's knowledge resources. Thus, you may occasionally

see "knowledge management" when we refer to an academic source but we advocate the stronger, more dynamic practice of "knowledge sharing."

1.2.1 How Knowledge Sharing Supports OPM's Strategic Plan

The Learning and Knowledge Sharing Strategy (LKSS) supports both the Vision and Mission of the agency's strategic plan by setting the stage to better develop OPM's workforce, improve processes, and become more responsive to our stakeholders. As we move forward in developing a more collaborative culture, OPM will be able to recruit, retain, and honor a world-class workforce as well as serve as a model to other agencies in the Federal government. The LKSS touches on all the values in OPM's strategic plan, with special emphasis on Respect, Integrity, Diversity, Excellence and Innovation. The following table highlights how this strategy supports OPM's strategic goals:

Table 1: Mapping OPM's Strategic Goals to the LKSS

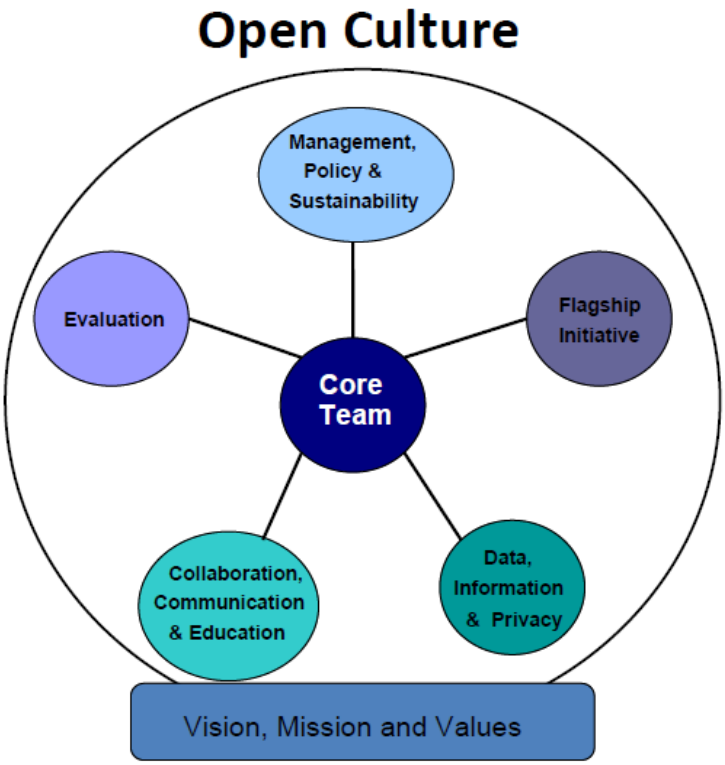
OPM's Strategic Goals	How LKSS Supports the Strategic Goal
Help agencies recruit and hire the most talented and diverse Federal workforce possible to serve the American people.	CoPs will be formed to develop best practices on recruitment and hiring and share this knowledge throughout the agency. A major part of the LKSS is to inventory existing processes and then refine those processes (such as the Federal hiring process) through collaboration with external stakeholders.
Provide the training, benefits, and work-life balance necessary for Federal employees to succeed, prosper, and advance in their careers.	CoPs provide a focus on continuous learning, training and peer mentoring that will help employees succeed, prosper, and advance. The collaborative practices that employees learn to use will enable them to share knowledge and disseminate best practices within the organization and with other agencies. One possible dissemination channel would be knowledge networks; these are affinity groups that share information about particular topics. The knowledge produced by CoPs and shared through knowledge networks will provide advancement opportunities and forge successful partnerships with internal and external stakeholders.
Ensure the Federal workforce and its leaders are fully accountable, fairly appraised, and have the tools, systems, and resources to perform at the highest levels to achieve superior results.	The Knowledge Management System that supports the LKSS will have business intelligence analytics and dashboards that will provide transparency and accountability on agency processes. The CoPs will create, develop, and disseminate new tools, systems, and resources to aid OPM in performing at its highest levels.
Ensure recognition and reward for exemplary performances of current employees and honor the careers of Federal retirees.	Some of the CoPs will engage in collaboration among OPM employees, contractors, and external stakeholders. We also advocate setting up CoPs for OPM retirees so that we can still access their knowledge for the benefit of new and current OPM employees. CoPs will also be established to

OPM's Strategic Goals	How LKSS Supports the Strategic Goal
	help improve the processes surrounding Federal retirement. COPs will also be given appropriate recognition for solving complex agency problems and exemplary performance.

1.3 Background of the Open Government Team and the Flagship Initiative

The Open Government Memorandum (M-10-06) of December 8, 2009, commonly known as the Open Government Directive, sets an unprecedented standard for a more transparent, participatory, and collaborative form of Government. In response to the Directive, OPM established a governance structure comprising members of the Executive Board and their respective cross-agency representatives on the Core Team and Component Teams. The Component Teams comprise members from OPM, academia, nonprofits, other agencies and the union for the purpose of providing information and ideas to the Core Team. The Core Team then synthesizes the information from the Component Teams and makes recommendations to the Executive Board on implementing Open Government at OPM.

Figure 1: Open Government Governance Structure



Specifically, the Learning and Knowledge Sharing Strategy (LKSS) is the compilation of ideas shared by the Flagship Team; they developed the ideas in response to the following problem statement:

> **Flagship Initiative** – Knowledge sharing is critical for fulfilling and sustaining the OPM mission: to recruit, retain and honor a world-class workforce to serve the American people. Currently, OPM is limited in its capability to generate, store, access, retrieve, manage, preserve and willingly share knowledge and knowledge resources, formally or informally. OPM is, therefore, impaired in its ability to collaborate effectively internally, as well as with other agencies and the public, key elements to OPM's mission success.

This problem statement has guided the conversations, analysis and ideas shared by the Flagship Team that led to the Core Team proposing the specific solution outlined in this document. It is also important to note the goals of the LKSS flow from OPM's Strategic Plan, the Open Culture Plan and the Communication and Collaboration Plan. We summarize the key points of the Open Culture Plan and the Communication and Collaboration Plan in the following section.

1.4 Culture Plan Summary

More than 50 members of the Open Government team conducted an analysis of OPM's current environment and created a vision of a future open culture. The results of this analysis describe six thematic areas that our agency needs to focus on to bring openness to OPM:

- Risk, change and empowerment
- Communication, collaboration, and information
- Organizational silos
- Training, education and continuous learning
- Performance management
- Sustainability

To address the six themes, the Core Team made the following recommendations:

- Engage and serve external stakeholders better to meet the Agency's mission
- Focus on leadership, management, and performance to find good role models and strengthen accountability
- Foster continuous learning and accept failure as part of learning, which can lead to innovative solutions to our problems/challenges
- Revisit policies, processes and procedures that are barriers to collaboration to maximize our ability to work together and with stakeholders

- Understand, explain, embrace, live and reward openness to ensure the changes we bring about are sustainable and create a solid foundation for future initiatives
- Use the people, knowledge, and skills we have in place to recruit, retain, and honor OPM's own employees, while better serving other Federal employees, job seekers, annuitants, other agencies and stakeholders

The Communication and Collaboration Plan was identified as a "next step" in the implementation of the Open Culture Plan and is summarized in the following section.

1.5 Communication and Collaboration Plan Summary

The tangible outcome of the Communication and Collaboration Plan is the establishment of a sustainable culture of dialogue and collaboration among OPM employees along with external stakeholders. The following four goals guide the strategies and activities of this plan:

1. Work to remove or reduce organizational silos in ways that will improve employee productivity and lead to OPM's more effectively fulfilling its mission.

2. Encourage collaboration with all external stakeholders to improve communication and satisfaction with OPM.

3. Share information with the general public, Congress, and OMB in ways that create transparency into all agency programs, services and lines of business.

4. Develop internal and external communication protocols and procedures so that OPM speaks with one voice, clearly and succinctly.

We developed three communication strategies – *Education*, *Marketing*, and *Reporting* – and two collaboration strategies – *Dialogue* and *CoPs* – to bring about these four goals.

2 WHAT IS KNOWLEDGE SHARING?

The APQC (formally known as the American Productivity and Quality Center) defines knowledge as "information in action" (O'Dell & Hubert, 2011, p. 2). From that concept comes APQC's conception of knowledge management (sharing) as "a systematic effort to enable information and knowledge to grow, flow, and create value" (O'Dell & Hubert, 2011, p. 2). We will establish knowledge sharing at OPM to break down organizational silos and create communities of practice that foster, capture and disseminate explicit and tacit knowledge (defined below).

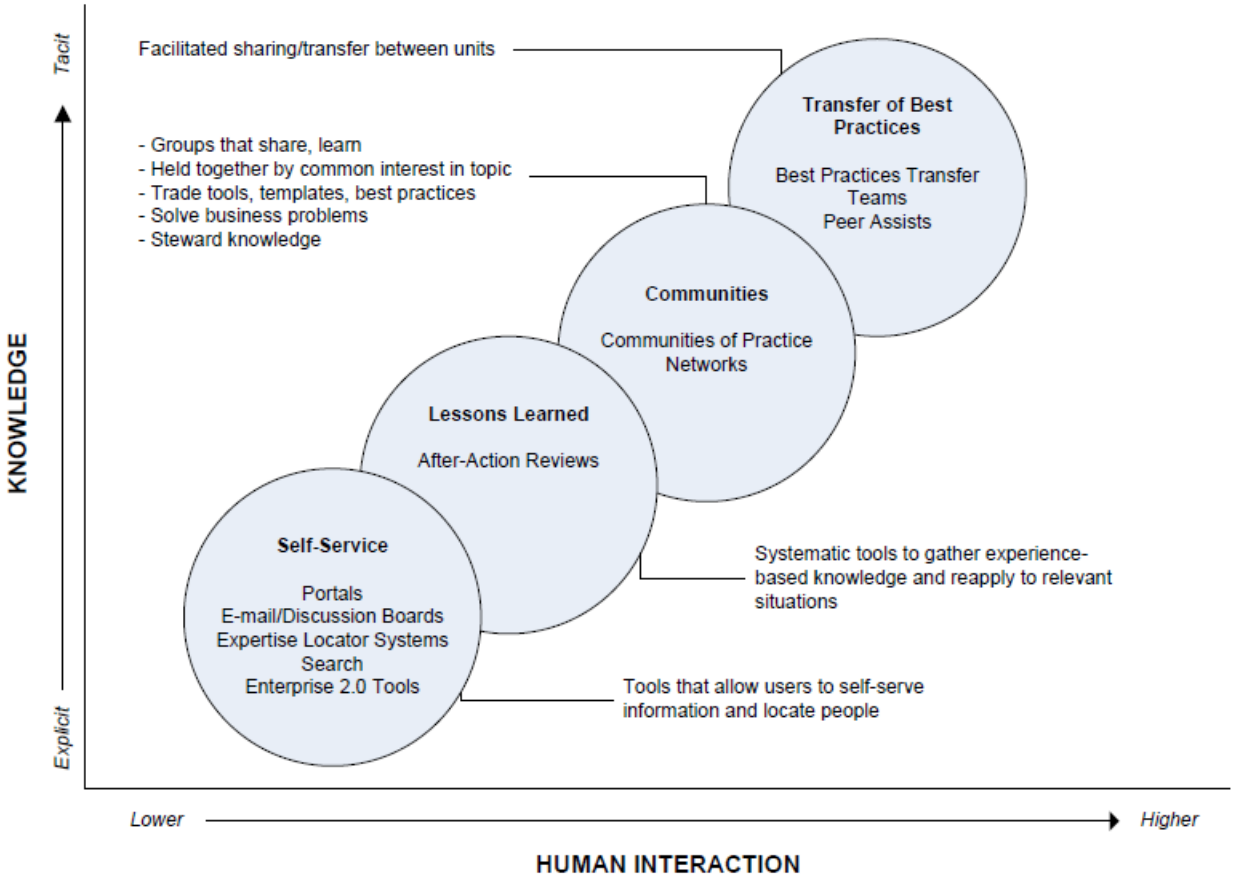
We want to construct knowledge sharing in the form of collaboration and learning so that it becomes a part of OPM's core organizational structure. This sharing will not be a separate activity; rather, it will be part of a systemic approach and integral to our daily work processes at OPM and as we engage with OPM's stakeholders. Ultimately, knowledge sharing will be as automatic and routine as breathing for OPM employees, contractors, and external stakeholders: "Enabling employees to do their work more easily – by collaborating and capturing and sharing knowledge without an additional burden or interruption on their part – is doing knowledge management (sharing) in the work flow. Asking employees to stop their work process to move to another mode to reflect, capture, or share is doing knowledge management (sharing) out of the work flow" (O'Dell & Hubert, 2011, p. 2). By creating and sharing knowledge 'in the flow' employees will be more willing to make contributions as they will not see it as adding another duty to their already heavy workload.

2.1 Explicit and Tacit Knowledge

Conceptually, there are two important types of knowledge: explicit and tacit (Nonaka and Takeuchi, 1995). Explicit knowledge is essentially that which we document. Most often, this is knowledge in our manuals, standard operating procedures, regulations, memoranda, and so on. It is essential, but equally important is tacit knowledge. Tacit knowledge, unspoken knowledge used to make judgments, decisions or interpretations, is difficult to document because, for example, we may not readily recognize it as knowledge or the concept that we would like to document is difficult to describe. For instance, a book of recipes is explicit knowledge, but it takes tacit knowledge to interpret the recipes and produce good meals. Tacit and explicit knowledge are in the process of constant dynamic interaction within the organization: employees socialize their tacit knowledge, combine explicit knowledge, convert tacit knowledge into explicit, and internalize explicit knowledge so that it becomes a routine part of their behaviors.

OPM does a good job documenting explicit knowledge; however, we need to do better in capturing tacit knowledge for the benefit of the organization and our stakeholders. We can introduce many knowledge sharing events at OPM to ensure the adopted activities fulfill the strategic mission of the agency. However, we feel that by (1) increasing the capture and dissemination of tacit knowledge through encouraging employees to socialize it and convert tacit knowledge into explicit and (2) increasing the level of collaboration and learning that help enhance explicit knowledge, OPM will best meet its strategic goals. The following diagram illustrates the activities we plan to introduce as part of this strategy" (O'Dell & Hubert, 2011, p. 46):

Figure 2: Converting Tacit Knowledge into Explicit



2.2 Strategy for Enterprise-Wide Knowledge Sharing

Drawing on O'Dell and Hubert's work (2011, p. 43), the five tenets of OPM's Learning and Knowledge Sharing Strategy are:

1. "The [KM] strategy is based on engaging people, process, and technology." Knowledge sharing is about people and processes, with technology as an enabler. CoPs will be the common ground for engagement.

2. "The [KM] strategy contributes to overall organizational goals." OPM's strategy will support the goals of the Open Culture Plan.

3. "Timing is everything." This means we will concentrate first on creating CoPs and collaboration. Knowledge sharing tools will be introduced only when the tools will enhance tested collaboration and learning practices.

4. "[KM] strategy leverages existing processes and technology." We want to leverage existing knowledge sharing practices and fully utilize OPM's current technology before introducing new practices and tools. This will make the strategy more cost-effective and more likely to be adopted by OPM employees, contractors, and stakeholders. The most effective method for leveraging is through CoPs.

5. "The strategy will transform the perception and value of KM" " (O'Dell & Hubert, 2011, p. 43). Key to the fifth tenet is incorporating as much of the LKSS strategy in employees' workflow as possible. OPM produces explicit knowledge well but we need better methods for accessing tacit knowledge. Equally important is developing methods to capture, store, and disseminate tacit and explicit knowledge.

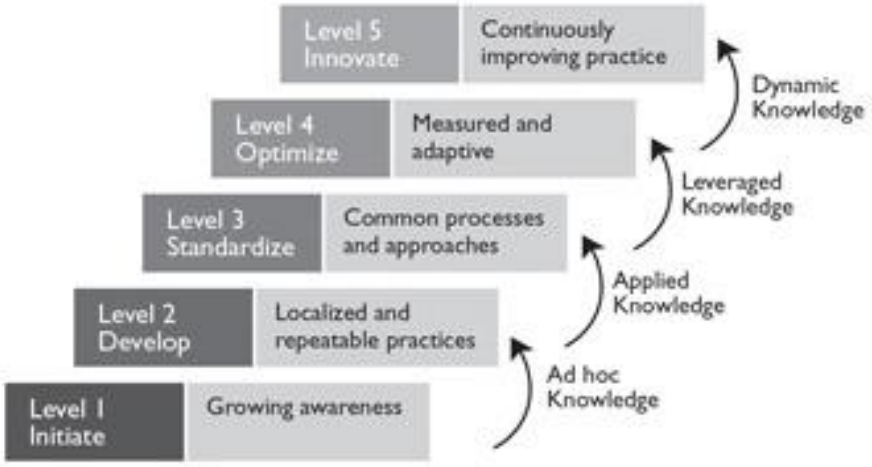
These tenets are embodied throughout the following sections of this document and will be used to initiate, grow, and sustain learning and knowledge sharing at OPM. In the next section, we describe the fundamental structure – communities of practice – that will be the foundation for other learning and knowledge sharing activities.

2.3 OPM's Current Knowledge Management/Sharing Maturity Level

The APQC developed a Knowledge Management Maturity Model to help organizations determine how well they share and manage knowledge. At Level One, the organization realizes that its knowledge assets are scattered throughout the organization and that knowledge sharing is infrequent at best. As the organization moves up the levels, it identifies and makes knowledge assets accessible throughout the organization. Thus, at Level Two, the organization has local pockets of repeatable best practices while, at Level Three, the organization is starting to standardize these best practices. The organization begins to optimize its processes at Level Four. At Level Five, all of the organization's knowledge is easily shared by all members of the organization and collaboration is used to continually improve the organization's processes.

OPM is somewhere between Levels 2 and 3 of the Knowledge Management Maturity Model. The full implementation of the LKSS will move OPM to Level 5, allowing OPM to realize the strategic goals of OPM's Strategic Plan because we will effectively capture and share knowledge to improve the agency's processes.

Figure 3: Knowledge Management Maturity Model



2.4 Organizational Structure

A major barrier to knowledge sharing and collaboration at OPM is the agency's current organizational structure. OPM's functional structure helps people know where to go for subject matter expertise, information, crisis intervention, products and/or services. However, this sort of vertical structure with deep subject matter expertise creates organizational silos that inhibit knowledge sharing and collaboration. OPM's silos contain pockets of excellence and best practices but these are neither accessible nor shared across the agency.

A siloed organization also runs a greater risk of creating redundant functions, processes, and systems. These redundancies increase the organization's costs; funding at OPM is currently quite limited and likely to remain so for years to come.

We see a true opportunity to realize the benefits of learning and knowledge sharing by overlaying networks over the current hierarchical structure of OPM. An additional benefit to this proposed new structure is that we can make better use of limited resources by using the networks to refine agency processes. A horizontal structure will support the formation and continuity of cross-functional CoPs. A recommendation regarding implementation of this horizontal structure and performance management strategies is forthcoming to the Executive Board. CoPs will be invaluable as they cut across the silos, bring people together to solve complex agency problems, promote continuous learning and teach employees to collaborate throughout the agency regardless of subject-matter expertise.

It is also vital that we learn to communicate as "one OPM" because our stakeholders view us as a single agency. Many of the people we serve have complex problems that cannot be solved in just one functional office, so we can be more responsive to our stakeholders, we must share

knowledge across organizational silos. Our processes also will become more effective as we learn to handle the handoffs between the silos and avoid the problem of solutions becoming lost as we "toss them over the fences" that surround our functional areas.

3 COMMUNITIES OF PRACTICE

As defined in the Communication and Collaboration Plan, CoPs are "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger, McDermott, & Snyder, 2002, p. 4.) There are CoPs in OPM that have organized on their own, but without formal support from OPM's executive leadership, these informal CoPs will not realize their full potential, and without strategic guidance they will fail to align their goals and activities with OPM's mission. The benefits of CoPs are too valuable for them not to be the basis of OPM's knowledge sharing strategy. By formalizing the CoP creation and nurturing process, OPM will (O'Dell & Hubert, 2011, p. 62):

- "Provide the means to translate local know-how into global collective knowledge"
- "Help employees exchange ideas, collaborate, and learn from one another," thus creating a shared repertoire of practices and shared culture
- "Transcend boundaries created by work flow, functions, geography, and time"
- "Enable the speed and innovation needed for . . . leadership"

3.1 Process for Creating and Growing CoPs

Formally establishing, growing, and maintaining a CoP is a complex process. Drawing on O'Dell and Hubert's work (2011, p. 62), we recommend a separate document be produced to establish the details of the creation of CoPs at OPM and to train employees and stakeholders in Action Learning (discussed in the following section). This section describes the basic process for establishing CoPs, starting with the 10 key traits of successful CoPs:

1. "A compelling, clear value proposition for all involved"
2. "A dedicated skilled facilitator or leader"
3. "A coherent, comprehensive knowledge map for the core content of the community"
4. "An outlined, easy-to-follow knowledge sharing process"
5. "An appropriate technology medium that facilitates knowledge exchange, retrieval, and collaboration"

6. "Communication and training plans for members and interested stakeholders"
7. "An up-to-date dynamic roster of community members"
8. "Several key metrics of success to show results"
9. "A recognition plan for participants"
10. "An agenda of critical topics to cover for the first – and next – three to six months of existence"

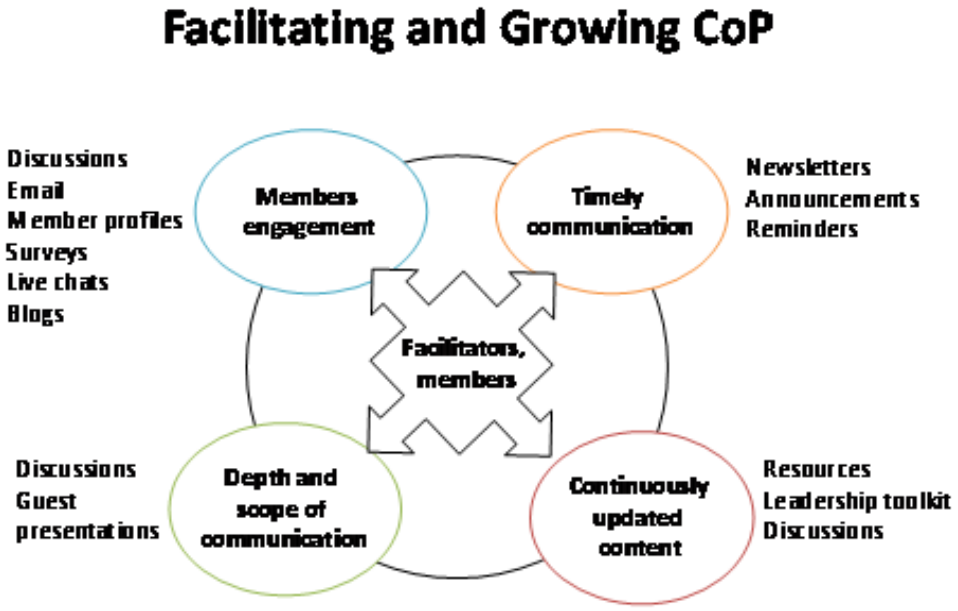
All CoPs go through a common lifecycle, even if their lifespans differ. OPM's informal CoPs that arise without organizational support need to be inventoried to determine their stage in the lifecyle. For CoPs created and supported by OPM, we recommend they follow Snyder and Briggs' (2003) model, which identifies the following stages:

- Discovering the potential
- Coalescing
- Maturity/Growth
- Advocacy/Stewardship
- Transformation

Each stage has a number of associated goals and activities or tasks. For example, OPM's current stage is "discovering the potential." In this stage, OPM should seek to identify issues that the CoPs will address and align these issues with strategic objectives of the agency and members' interests. Activities and tasks would include approving the CoP strategy and identifying the target population; recruiting CoP leadership to form a steering committee, along with champions; defining the roles of the executive sponsor so as to leverage his or her influence; recruiting participants, e.g., via email; identifying key needs and issues for the CoP to address via online surveys; and identifying key content areas for the CoP's Web site. The final set of activities and tasks under "discovering the potential" is to create a charter for the CoP and (if needed) train members on how to use the collaboration platform collectively.

As described below, we will support the CoPs through a collaboration platform in OPM's forthcoming Knowledge Management System. We need an online platform to offer additional communication channels and to capture the explicit and tacit knowledge created by the CoPs. The following diagram describes how the collaboration platform will support OPM's CoPs:

Figure 4: Supporting CoPs with a Collaboration Platform



3.2 Action Learning and Communities of Practice

Action Learning (AL) is the approach used by all the teams in OPM's Open Government effort because it models the type of collaboration and dialogue we would like to see implemented throughout the agency. This cross-agency, collaborative team approach allows members to learn a great deal from one another in a short period of time, while solving real problems and developing new ways of fulfilling OPM's mission with openness in mind: "Action learning contains a well-tested framework that enables people to effectively and efficiently learn and to simultaneously handle difficult, real-life situations" (Marquardt, 1999, p. 4).

AL is a simple but powerful model. First, a group is formed to consider a single but complex organizational problem. Second, the problem is presented to the group. In the third stage, the group explores the problem to determine if it needs to be reframed so the real, underlying issue can be addressed. Fourth, the group establishes goals that will solve the reframed problem and then, fifth, devises action strategies to solve it. In the sixth stage, the group takes action. Throughout the six stages of AL, the group captures the lessons it learns while tackling the problem (Marquardt, 1999, pp. 12-13).

AL has enabled the Open Government teams to think creatively about innovative methods to overcome the barriers that impede Open Government at OPM. The team members started with an inductive inquiry to define the problem and then solve it through planned action

(Marquardt, 1999). During the process, team members also reflected on how they learned so they could develop as problem solvers. These learnings are documented and shared with other teams as best practices.

Like the Open Government teams, the CoPs will use the Action Learning (AL) approach. Members will be trained in the AL process and Open Government team members will serve as AL mentors to the CoPs. With AL, the CoPs will be focused on the most important, cross-cutting problems at OPM and will devise solutions to benefit the entire agency. AL will also ensure that best practices and tacit knowledge are captured for dissemination by the knowledge networks to all of OPM's stakeholders.

AL supports OPM's Strategic Plan through problem solving, organizational learning, team building, leadership development, and professional growth/career development (Marquardt, 1999, p. 5). These benefits are best realized in groups, which is why we advocate CoPs as the foundation for the Learning and Knowledge Sharing Strategy (LKSS). CoPs are the key to the success of OPM's LKSS and AL the key to the success of OPM's CoPs.

4 SUCCESSION PLANNING

An equally compelling reason for establishing CoPs as soon as possible is the immediate issue of succession planning. Over the next few years, nearly 30 percent of OPM employees in Corporate Leadership Positions are projected to terminate their employment with OPM through retirement or other attrition. The possible loss of institutional knowledge is potentially devastating to the organization. Without an effective strategy for learning and sharing knowledge, OPM's ability to execute its mission could suffer. Additionally, when this exodus of corporate intelligence is coupled with a rapidly changing work environment, an even more urgent need to establish systems for capturing the knowledge of these key employees becomes evident.

Thus, the need for CoPs is great. OPM needs to capture not only explicit knowledge but also the tacit knowledge that is best acquired through mentoring and CoPs. Individual mentoring will be a vital part of succession planning, but CoPs can provide opportunities for group and peer mentoring. Another advantage of CoPs is that they transform explicit knowledge and tacit knowledge into dynamic bodies of knowledge that is continually refined by the members of the CoPs. For the most impact, the knowledge captured by exiting leaders will be processed and actively disseminated by the CoPs. The learning and experience gained through CoPs is an effective way to develop leaders of the future.

5 KNOWLEDGE SHARING TECHNOLOGY

The Flagship Team had numerous discussions prior to submitting ideas for the development of this strategy. In those discussions, team members established several principles for the adoption of technology to support OPM's knowledge sharing activities:

1. Tools will be stood up only when the users express the need for a tool.
2. No tool will be selected until a thorough requirements analysis is conducted.
3. Existing software applications will be considered first before introducing new tools into OPM's business processes.
4. Every effort will be made to integrate the knowledge sharing tools into employees' current ways that they work.

We have learned that past knowledge management efforts failed because the tools were stood up first before determining employees' needs. For example, this was Federal Aviation Administration's (FAA) experience back in 1996 to 1998:

> The first thing that FAA decided to do was to install some collaborative software technology solutions in response to this challenge [establishing knowledge management at FAA]. This was a classic case of "build it, and they will not come," as a technical team installed a technology solution without there being any dialogue with the business users about what their preferences or suggestions for possible approaches might be. Inevitably the technology-first approach hit a brick wall, and Ron [Simmons] and his team came to the conclusion that finding out more about the collaborative processes might actually have been a better place to start (Sinclair, 2006, p. 136).

Based on the principles and a preliminary inventory of current software tools, the Flagship Team decided that combining Theo (OPM's intranet) with OPM's external web site will create a good platform to support the various knowledge management tools. We provide a high-level view of OPM's proposed knowledge management system, with a document to follow that will provide specific requirements.

5.1 THEO 2.0

OPM has several existing knowledge management tools such as Moodle, Serena Business Mashups, and so on. Currently, these tools are limited for use by small groups in OPM. Each has useful features for some knowledge management/sharing activities but no one tool can provide

all of the required features. Thus, we suggest a "federated" approach in which a redesigned Theo will serve as a common entry point to various knowledge management solutions. The best analogy is the current apps market for smart phones. Theo 2.0 will be the portal in which the various knowledge sharing modules (KSMs) present a web-based interface. Each of the KSMs will be designed to share their data among other KSMs through application programming interfaces (API) and Extensible Markup Language (XML) data feeds. Thus, new KSMs will be added to Theo 2.0, while existing KSMs can be easily upgraded or retired. Stakeholders will also be able to customize Theo 2.0 with the KSMs most relevant to their work.

Each of the sections below briefly describes the various foundational components of Theo 2.0.

5.2 FAQs

OPM established interactive frequently asked questions (FAQs) in 2010 that have proven successful with the public. We want to expand the use of the FAQs so that they can better serve as an internal knowledge resource and provide better stakeholder engagement.

5.3 Enhanced Directory

Along with OPM's FAQs, we currently have an organizational directory available on OPM's public web site. The Open Government team has a plan to improve the directory and connect it to an enhanced directory based on function/mission and not just organizational points of contact. This will also be available internally.

5.4 Document Management and Records Management

The current document management system (DMS) is a stand-alone system. For better compliance with record management and FOIA regulations, DMS will be replaced with a solution that will integrate into the document creation workflow. For example, a user will create a Word document and then use the new document management system to automatically tag and route the document through the appropriate workflow. At the same time, the document will be stored in an approved area with an organizationally approved common naming convention and automatically managed in accordance with OPM's records schedules.

5.5 Learning Connection

Learning Connection, a set of professional development online tutorials, was introduced in 2011 as an organization-wide training platform. It is currently available through Theo. In Theo

2.0, Learning Connection will be expanded to support the training necessary to support the CoPs by becoming collaborative using Action Learning techniques. The Open Government team will provide a set of tutorials on Action Learning to help employees understand and use the concepts in their CoP activities.

5.6 Idea Factory

Idea Factory, an online employee suggestion tool, was introduced in 2011 and will be available through Theo 2.0. Some CoPs will be formed to collaborate and implement the more complex ideas introduced through Idea Factory that have agency-wide implications.

5.7 Mentor Connect

Mentor Connect is a future tool to support OPM's mentoring program. The tool allows for matching mentors and mentees through career interests and managing the administrative details for mentoring interactions. There will also be features that will support online mentoring from staff external to OPM.

5.8 Content Management

The current practice of posting to OPM's public web site is a long and involved process that requires numerous interactions. In Theo 2.0, we will automate the process of publishing to the public web so that program offices can be more responsive to external stakeholders. Approved documents will then be available to the public in almost "real time." The content management system will be accessible through Theo 2.0.

5.9 Business Analytics and Process Intelligence

Theo 2.0 will support OPM's performance management efforts by providing a centralized repository where CoPs will discover, inventory, and record business processes for discovering best practices and provide transparency on OPM's business practices. We will create dashboards to measure and report on the efficiencies of OPM's processes and help make those processes more effective. There are many metrics in OPM's Strategic Plan that will be contained in the dashboards, such as:

- A decrease in the end-to-end hiring time for job applicants.
- Increased percentage of security and suitability investigations and adjudications that meet quality and timeliness standards.

- Increased percentage of Federal employees who report satisfaction with work-life programs.
- Increased efficiencies of retirement processing.

The goal is to make available as much real-time data as possible to improve decision making and the ability to react quickly to evolving issues or events.

5.10 Collaboration Platform for CoPs

A major component of Theo 2.0 will be an online collaboration platform for OPM's CoPs. The tool will allow the CoPs to maintain their documents, rosters and lessons learned. The collaboration platform will also offer online synchronous meetings, discussion boards, blogs, and a wiki to contain the body of knowledge created by the COP. Theo 2.0's CoP collaboration platform will support internal and external stakeholders who will make up the various communities. The collaboration platform will allow an online collaboration site to be quickly created and will support role-based logins so that stakeholders will have the ability to participate in and lead the different CoPs to which they belong.

6 MEASURING KNOWLEDGE MANAGEMENT

We recommend the Open Government Team determine whether the knowledge sources and strategies surveyed in 2006 and listed in the Appendix still exist. This was OPM's first knowledge audit, and we want to validate and update the state of the 2006 knowledge assets so we will have a better understanding of OPM's current store of knowledge assets. We will also investigate current OPM metrics to determine if they can be used in measuring the progress of OPM's LKSS.

We will then develop four sets of metrics to measure the effectiveness of the Learning and Knowledge Sharing Strategy as we implement the activities to achieve this plan. Each of the metrics must meet the following principles (O'Dell & Hubert, 2011, pp. 143-144):

- "Align KM with [OPM's] organizational strategy"
- "Determine progress" of the various activities
- "Prioritize KM" activities
- "Evaluate and communicate about performance"
- "Gauge behavioral changes and acceptance of KM as [an organizational] practice."

The first set of metrics will be the milestones that each CoP will have as part of the activities' individual project plans. We expect that some of the individual activities will generate their own

metrics, such as use of the tool, efficiency of the process, and other similar self-generated metrics. For example, we currently use "the number of ideas produced" as a set of measures associated with Idea Factory. Also within those measures for Idea Factory are a number of comments, average ratings, and so on that describe employees' usage of the tool.

The second set of metrics will be a series of polls, surveys, and interviews. These will range from single-question polls that will be presented with the relevant tools, to questions on the Employee Viewpoint Survey, to in-depth focused interviews in the CoPs. Along with quantitative surveys, we also plan to use qualitative surveys in the Virtual Town Halls and Roundtables. An example of this is the short survey used in the FAQ section to determine how useful the FAQ was in answering the stakeholder's question.

As the communities of practice start to mature, we will also rely on their self-reported activities to measure the growth of OPM's collaborative culture. We will analyze the activity and content generated by the various CoPs as another way to assess growth. This will be our third set of metrics. Because the CoPs will use action learning, they will have a collection of learnings that can be analyzed and summarized for best practices. Through self-reporting and 360-degree feedback we will also measure individual employees' training and development progress.

The fourth and final set of metrics will explore how well the activities of the LKSS fulfill OPM's strategic goals. As illustrated in Table 1, we link the activities of the LKSS to specific parts of OPM's Strategic Plan. Throughout the implementation of this plan, we will use the previous three sets of metrics, plus an additional set to determine how well the LKSS is fulfilling OPM's Strategic Plan. With these four sets of metrics, we will chart the growth and acceptance of OPM's learning and knowledge sharing strategy, along with its overall impact on OPM.

The evaluation of knowledge sharing will consist of a multi-phased approach that includes setting objectives, developing evaluation strategies (to include identifying responder groups and developing survey research plans for all these groups, as well as developing a data analysis plan and a communication plan), designing surveys (developing survey items and validating the surveys), launching the survey (monitoring response rates, and, when necessary, following up with non-responders), and analyzing and interpreting data.

7 MARKETING THE KNOWLEDGE SHARING PROGRAM

It will take a sustained and constant effort to integrate knowledge sharing into OPM's processes and culture. In the Communication and Collaboration Plan, we have outlined how we will communicate the Open Culture plan. We will use the same communication activities to market the learning and knowledge sharing (KS) strategy. To aid the communication efforts, we will use

the following marketing matrix in shaping our messages for specific audiences. The matrix was originally developed by McKeen and Smith and later adapted by APQC to reflect the concepts in Sinclair's 2006 volume:

Table 2: Marketing Activity Matrix

	Tier 1 Basic Knowledge Needs	Tier 2 Enabling Knowledge Needs	Tier 3 Strategic Knowledge Needs
Objectives	Establish KS Competencies	Establish knowledge as a service enabler	Establish knowledge as a business imperative
Audience	Knowledge workers	Business and process managers	Senior managers
Marketing Spin	KS manages what we know	KS grows what we know	KS helps build new capabilities
Strategies	- Deliver existing information better - Partner with existing projects - Promote improved IM practices	- Establish better content integration e.g., data, records, web, corporate knowledge, etc. - Embed KS into business processes	- Help solve strategic problems - Help improve decision-making capacity - Build business capability
KS Competencies	- Analysis and packaging of information - Effective IM practices	- Knowledge analysis - Knowledge enabled business processes - E-content management	- Culture evolution - Community evolution - Service evolution
Obstacles	KS is seen as being too fuzzy to manage	KS is seen as being too broad to manage	KS is seen as being a technology issue only
Success Criteria	KS is included in any projects	KS is included from a process improvement perspective	KS strategy aligns and is integrated with business strategy
KS's Role	Knowledge supplier	Knowledge service provider	Knowledge business partner

8 CONCLUSION

OPM's success in meeting its strategic goals is dependent upon how well we share knowledge and collaborate both internally and externally with stakeholders. The outcome of this learning and sharing will enable a more engaged workforce that together, through their synergy, can make process improvements to better fulfill our mission and service our stakeholders. That is why communities of practice and action learning are the foundation of the LKSS. We believe that OPM's learning and knowledge sharing efforts will be successful because our focus is on people and processes rather than technology. By focusing on strengthening collaboration and learning in OPM's culture, while using technology as an enabler, we will avoid the pitfalls that have plagued other agencies as they have implemented knowledge management systems. OPM's success with implementing this strategy will serve as a model to the other Federal

agencies we serve in our capacity as the government's human resources office and help us recruit, retain, and honor America's Federal workforce.

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APPENDIX – 2006 SURVEY OF OPM KEY KNOWLEDGE AREAS AND KM STRATEGIES

Strategic Human Resources Policy Division

(Now mostly Employee Services. Some functions now fall under Planning and Policy Analysis, Healthcare and Insurance, Chief Information Officer, and Retirement Services.)

Key Knowledge Areas	KM Strategies implemented within the past year to document and/or share this knowledge
Chief Actuary functions/requirements Federal performance budgeting, program integration Employee benefits and work/life programs Legislative drafting and process Retirement benefits policy development and administration Federal and non-Federal pay and performance programs and policies Database concepts, data presentation and data manipulation Industrial/Organizational/Social Psychology; measurement theory, psychometric methodology, and statistics Employment, labor, and suitability law (including case law) and policy Federal level HR staffing and classification policy (legislation, regulations, policy manuals) Recruitment and candidate examining (evaluation) laws, policies, regulations, court decisions, and operations Occupational analysis, competency profile development and assessment tools Executive resources, the rules and legislation affecting SES recruitment, placement, pay, and retention HR Information Systems	Creation of SOPs Creation of Training Manuals and Job Aids Yellow Pages Knowledge Center

Human Capital Leadership and Merit System Accountability Division

(Now Merit System Audit & Compliance.)

Key knowledge areas	KM Strategies implemented within the past year to document and/or share this knowledge
Human Capital leadership Human Resource management (hiring and recruiting) Scoring President's Management Agenda Standard Operating Procedures Leadership guidance Compliance, merit system accountability deliverables (Adjudication function: FLSA, classification, pay and leave claims) Strategic Plan deliverables Executive Core Qualifications Systems knowledge- tracking, data management, design and development of tools for Federal Governmentwide use	Creation of SOPs Creation of Training Manuals and/or Job Aids Knowledge Harvesting After Actions Reviews Knowledge Sharing Workshops Peer Assists Communities of Practice Identify and Sharing Best Practices Knowledge Center (shared LAN directories and THEO)

Office of the General Counsel

Key knowledge areas	KM Strategies implemented within the past year to document and/or share this knowledge
Retirement program (advice/counsel/litigation) FEHB, FEGLI, FLTCP (advice/counsel/litigation) Compensation and benefits (advice/counsel/litigation) Ethics (advice/counsel/training) Labor relations (advice/counsel/litigation) Merit System Protection Board (litigation) Reconsideration/intervention function (appellate litigation) EEO (advice/counsel/litigation) FOIA/PA (advice/counsel/administrative appeals/litigation) E-Gov (advice/counsel) Budget, personnel, performance management	Creation of Training Manuals and/or Job Aids Knowledge Sharing Workshops Peer Assists Yellow Pages Communities of Practice Identifying and Sharing Best Practices

Management Services Division

(Now part of Employee Services, Chief Information Officer, and Facilities, Security & Contracting.)

Key knowledge areas	KM Strategies implemented within the past year to document and/or share this knowledge
Information, physical, industrial, and operations security, intelligence and protective operations Continuity of Government, Continuity of Operations, Occupant Emergency Planning, Shelter-in-Place Planning and testing and training exercises, Federal Operating Status Planning, National Response Plan, National Incident Management System National security investigations, personnel security, and security suitability adjudication actions Protective operations, critical infrastructure assessments (HSPD-6), law enforcement and intelligence community liaison. Office and facility assessments Building Operations: parking, cafeteria/snack bar, pest control, landscaping, trash removal/hazardous waste, recycling Contracting competition and acquisition planning Socioeconomic programs General contracting requirements, special categories, and outsourcing Human Resources management and Strategic Human Capital management laws, regulations, policies, and operations President's Management Agenda Equal Employment Opportunity Laws, regulations, policies Mediation, counseling, EEO investigations	Creation of SOPs Creation of Training Manuals and/or Job Aids Developmental Assignments Yellow Pages Knowledge Centers

Human Resources Line of Business (HRLOB)

(Now located in the Office of the Chief Information Officer.)

Key knowledge areas	KM Strategies implemented within the past year to document and/or share this knowledge
HRLOB Transformation Leadership and Management ♦ HRLOB strategic leadership, governance, implementation strategies, and cross-agency collaboration ♦ HRLOB Shared Service Center selection, establishment, and operation ♦ HRLOB consolidation and standardization ♦ Agency migration requirements and processes and actual migrations to SSCs ♦ HRLOB Enterprise Architecture design, development, and documentation ♦ HRLOB funding mechanisms, MOU development, negotiation, and management ♦ HRLOB performance management, Service Level Agreement design, development, establishment, and oversight ♦ Earned Value Management knowledge and expertise ♦ Training systems in the Federal Government ♦ e-Payroll Consolidation and Migration Management ♦ e-Payroll strategic leadership, governance, and implementation strategies ♦ e-Payroll migration oversight and management ♦ e-Payroll performance management EHRI Implementation Leadership and Management ♦ EHRI strategic leadership, governance, implementation strategies, and cross-agency collaboration ♦ EHRI product and service design, development, implementation, and operation ♦ EHRI performance management and customer service	Creation of SOPs Creation of Training Manuals and/or Job Aids Knowledge Sharing Workshops Peer Assists Yellow Pages Communities of Practice Identifying and Sharing Best Practices Knowledge Centers Other: HRLOB shared drives and Quick Place Collaboration Tool

Human Resources Products and Services

(Now Human Resources Solutions.)

Key knowledge areas	Strategies implemented within the past year to document and/or share this knowledge
Leadership Development Centers: content development/administration of seminars and programs Leadership succession planning programs: administration of programs and events Federal retirement and insurance programs Executive core competencies Project and personnel management Budget formulation and execution Federal procurement/contract negotiation skills Employee/labor relations Strategic planning Auditing Staff acquisition, HR strategy, Nationwide Testing, HR information technology, and Voting Rights Federal HR marketplace Industrial/organizational psychology matters; individual and organizational assessment, measurement/testing, litigation/EEO, occupational analysis, competency modeling, survey design and analysis, automated content analysis, program evaluation, pay-for-performance demonstration projects, and Title 5 regulations TMA Business Process, IDIQ re-compete GFIS and ProTrac Financial System Interface Consultative-based selling methods USAStaffing	Creation of SOPs Creation of Training Manuals and/or Job Aids Knowledge Harvesting Phased Retirement Retirees as Contractors/Consultants Rehired Annuitants Developmental Assignments After-Action Reviews Knowledge Sharing Workshops Peer Assists Yellow Pages Communities of Practice Identifying and Sharing Best Practices Knowledge Centers Co-op Program Acting assignments by staff members in leadership positions

Federal Investigative Services Division

Key knowledge areas	Strategies implemented within the past year to document and/or share this knowledge
Revision and maintenance of standard forms, regulations and other critical documents. Federal Personnel Security Investigations Program Background Investigations and Reinvestigations PIPS system, case processing, database display, and database modify Contractor and suitability adjudication FOIA/PA regulations and procedures/furnishing affidavits and testifying at hearings and/or court proceedings in defense of Privacy decisions Information security/classified processing Case Information Request System National Agency Check processes and procedures Local Agency Check processes and procedures Law Enforcement liaison Law Table maintenance and scheduling Research and development initiatives Legislation and on-going legal initiatives Assessment, design, development, delivery and evaluation of continuing education courses Federal Acquisition Regulations Contract development and oversight Case review Policy interpretation and distribution Contractor performance analysis and reporting Contractor fieldwork distribution and workload analysis Contractor FTE management Contractor audit program PMA/human capital issues OPM Strategic and Operational Plan Continuity of Government and Operations Product and services pricing Organizational performance measurement Competitive sourcing reviews Internal controls and risk management Interagency agreements Financial management and budget	Creation of SOPs Creation of Training Manuals and/or Job Aids Knowledge Harvesting Rehired Annuitants Developmental Assignments After-Action Reviews Knowledge Sharing Workshops Peer Assists Yellow Pages Communities of Practice Identifying and Sharing Best Practices Knowledge Centers

Office of the Chief Financial Officer

Key knowledge areas	Strategies implemented within the past year to document and/or share this knowledge
OMB Circular A-50, audit follow-up requirements OPM A-123, internal control over financial reporting OPM Risk Management Inventory and High Risk List Audit Follow-up Tracking System (AFTS) OPM Financial Management Manual (FMM) Government Performance and Results Act Federal Manager's Financial Integrity Act of 1982 Federal Financial Management Improvement Act of 1996 Chief Financial Officer's Act of 1990 Clinger/Cohen Act of 1996 Section 508 of the Rehabilitation Act OMB Circular A-127, OMB Circular A-130 Treasury's USSGL JFMIP core financial systems requirements OPM Directives Management Initiative, and related operational plans, schedules, controls, and issues Strategic Planning Performance budget planning and execution Performance and Accountability Reporting President's Management Agenda Budget and performance integration, including preparation of PARTs, full and marginal cost analysis OMB requirements; submission of budget Congressional budget preparation and submission Operating plan development Monthly and quarterly budget reviews Common services methodology Federal budget process Benefits trust funds	Creation of SOPs Creation of Training Manuals and/or Job Aids Knowledge Harvesting Rehired Annuitants Developmental Assignments Exit Interviews After-Action Reviews Knowledge Sharing Workshops Communities of Practice Identifying and Sharing Best Practices Knowledge Centers

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