



## Solution Life Cycle Coaching Approach

This document outlines the approach taken to develop Federal Student Aid (FSA) Coaches with a specific focus on the SLC Coaching deployment. This approach ensures that FSA Coaches are appropriately prepared with the proper knowledge, skills and materials to successfully coach individual projects on the SLC.

## Overview of the SLC

FSA has made considerable investment in the development of the SLC. This process framework is intended to guide a solution acquisition from identification of business need to the transitioning of solution to a support state.

In establishing a solution life cycle, FSA is better equipped to accomplish the following objectives:

- Streamline predictable, repeatable, measurable processes that help FSA meet its performance objectives
- Evidence of continued compliance to corrective actions resulting from the Office of Inspector General (IG) audit reports
- Evidence of compliance with the Clinger Cohen Act of 1996
- Evidence that, through the utilization of SLC processes, solution acquisition projects:
  - Deliver higher quality work products and solutions
  - Possess a common understanding of employee roles among all team members
  - Decrease acquisition and maintenance costs

## Evolution of the SLC

FSA's process framework has "evergreened" from Integrated Project Teams (IPT) to the current SLC, focusing on the acquisition of solutions. FSA's initial lifecycle development efforts created IPT processes aimed at guiding development teams through system development efforts. This included processes for rapid development, packaged software and web-based development efforts. The IPT process evolved into a System Development Life Cycle (SDLC) that comprised five distinct phases:

- Vision
- Definition
- Construction
- Deployment
- Support

After initial deployment and implementation of the SDLC, FSA's focus turned to the Software Engineering Institute's (SEI) Capability Maturity Model (CMM). The question at hand was, "Does FSA perform system development activities or acquisition activities?" After reviewing two of the CMM models, Software Acquisition Capability Maturity Model (SA-CMM) and Software Capability Maturity Model (SW-CMM), it became apparent that FSA was an acquisition organization and that FSA's lifecycle should primarily focus on the acquisition of solutions. FSA renamed the SDLC to the Solution Life Cycle (SLC) and utilized Key Process Areas (KPA) from the SA-CMM and the SW-CMM and merged the most applicable practices from each, to form the FSA SLC, as illustrated in Figure 1.1. This tailored framework is expected to provide maximum benefit to FSA and address FSA's specific business needs.

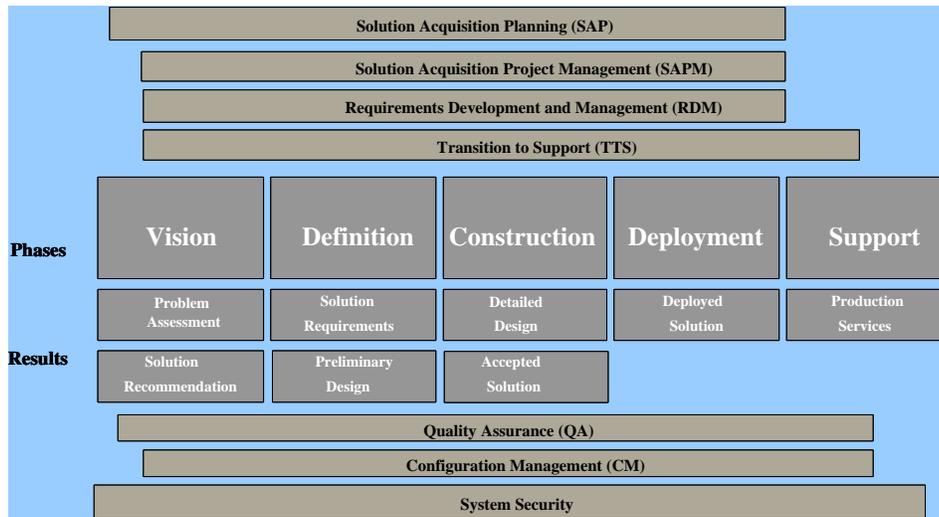


Figure 1.1 The SLC has evolved over time from the IPT process to the current SLC for acquisitions.

In addition to the CMM KPA's, FSA has developed a specific set of processes needed to support the improved delivery of secure systems in the production environment. These processes are defined in the Security Process Guide and are designed to improve the delivery of systems that meet government security compliance needs across FSA. The other KPAs provide processes, tools and artifacts supporting the FSA acquisition process. An SLC process guide was developed as well as core process guides providing relevant details and information for the seven KPAs. The guides provide instruction to help FSA execute consistent, repeatable processes and continually improve acquisition planning and project management activities. "Evergreening", continuous evaluation, improvement and refinement of existing processes, has helped FSA evolve its lifecycle from the IPT to today's SLC.

- SLC overview sessions
- SLC coaching

This approach enables the achievement of the differing levels of awareness, understanding and buy-in to the SLC. For example, those not directly impacted by SLC activities only need to obtain an awareness of the SLC, what it is and where to find additional information if necessary. Others may need a high-level understanding of this framework while others, who use the SLC on a daily basis such as project managers, require a more in-depth understanding. A combination of marketing, communication and coaching activities are deployment enablers. As illustrated in Figure 1.2, SLC briefing sessions, SLC overview sessions and SLC coaching will help FSA successfully deploy the SLC across all targeted audiences. Commitment to the SLC will not truly occur

## SLC Deployment Approach

A 3-pronged approach is recommended to successfully deploy the SLC:

- SLC briefing sessions



### Solution Life Cycle deployment follows a three-pronged approach

- FSA's life cycle has evolved from the IPT process to today's acquisition-focused SLC.
- Past deployment efforts piloted Solution Acquisition Planning and Requirements Development and Management Key Process Areas.
- A three-pronged deployment approach of marketing, communication and coaching is recommended to successfully deploy the SLC to all audiences:
  1. SLC briefing sessions to increase awareness of the SLC among leadership.
  2. SLC overview sessions to raise awareness of the SLC among ALL impacted audiences.
  3. SLC coaching sessions provide performance support on how and when to use the SLC and where to find resources/tools.

until people have real-life experience using the SLC.

### SLC Briefing Sessions

SLC briefing sessions were aimed at gaining awareness among FSA senior leadership, within the CIO organization and across

Integration Partner leadership and task order managers. The SLC briefing sessions, which occurred in Spring 2002, consisted of a 15-minute communication presentation. For the majority of the audience, this was their initial exposure to the SLC. These sessions were designed to be brief and provide a high-level introduction to the SLC.

### SLC Overview Sessions

The SLC overview sessions are aimed at gaining awareness and providing a more detailed understanding of the SLC among **ALL** audiences. These 90-minute sessions are a more detailed version of the SLC briefing session. SLC overview sessions occurred in March through October 2002 and are expected to continue on a bi-monthly basis through the CZ Tech Series within FSA University.

### SLC Coaching Deployment

Following the SLC briefing sessions and overview sessions SLC Coaches are available to assist project teams with SLC utilization and compliance. The SLC coaching activities outlined on the following pages are aimed at better enabling the adoption of the processes and

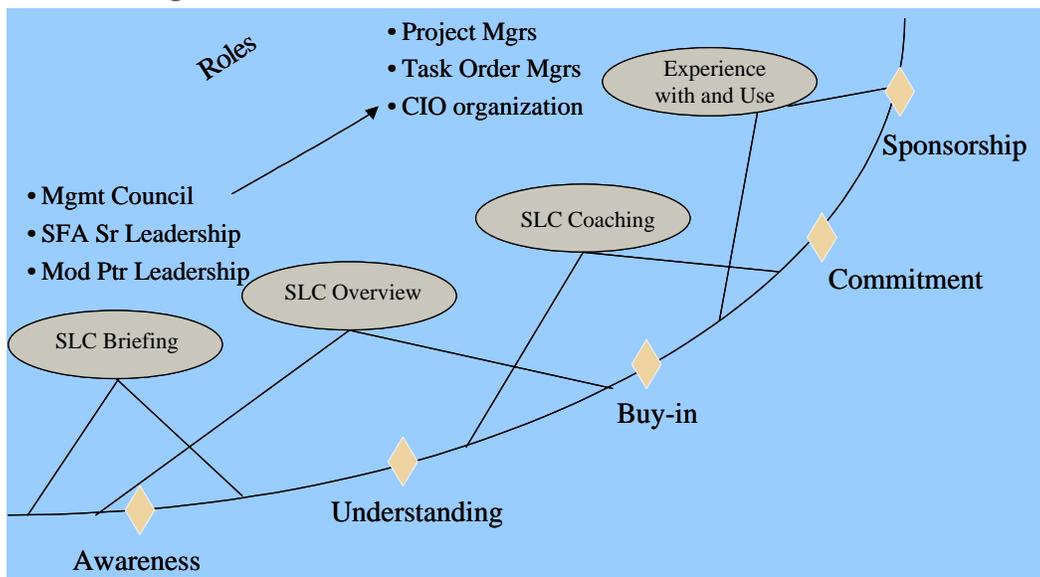


Figure 1.2 Deployment approach differs based on the audience's required level of commitment to the SLC.



tools associated with the SLC. All tasks and artifacts within the SLC are intended to satisfy the initial SLC objectives of providing a standard, repeatable process for acquisition activities reducing rework building a knowledge repository of lessons learned.

### **SLC Coaching Deployment Objectives**

The primary objectives of the SLC deployment effort are to:

- Increase use of the SLC across solution acquisition projects
- Communicate the benefits of using the SLC
- Build a common understanding of the process and artifacts within the SLC
- Help to build an SLC coaching capability within FSA's CIO
- Provide the tools and materials to assist SLC coaches in their interaction with the project teams

These high level objectives are accomplished by identifying objectives for three discrete areas: Coaches, Phase 1 Projects (and Project Managers) and the SLC itself.

The Coaching Objectives illustrate the expectations of SLC Coaches. These include:

- Ability to guide projects through the SLC Framework
- Functional knowledge of SLC Tools and Techniques
- Ability to raise awareness of the SLC among project teams
- Create demand and excitement for the SLC and its benefits
- Understanding of and commitment to the role and responsibility of an SLC Coach

Phase 1 projects will be identified to pilot the advantages of using the SLC tools and process. Expected outcomes of these Phase 1 projects include:

Recognition of SLC's contribution to performance

- Awareness and commitment to the SLC among project team
- Greater awareness of big picture project goals – starting with the end in mind
- Interest and enthusiasm to continue use of SLC and request additional assistance from the SLC coaches, if needed
- Understanding of the role and responsibility for a project manager relative to the SLC

SLC Process Objectives represent the expectations regarding continued maturation and adoption of the SLC throughout FSA. These objectives include:

- The entire organization being aware of the SLC, its benefits and appropriate points of contact
- Continued relevance to Integration Partner projects
- The ability to ensure that projects are pursuing the appropriate outcomes
- Standard processes for tailoring tools utilized to unique needs of a project
- The ability to align tasks in existing projects to an appropriate outcome

Meeting these objectives drives all of the efforts identified in this approach, ultimately aligning the work completed to the goals set forth by FSA.

### **SLC Coaching Approach**

Appropriately identifying the following components of the approach are critical to developing SLC Coaches within FSA:

- SLC Coaching Tasks



- SLC Coaching Materials
- Timeline of Delivery
- Criteria for Selecting Potential Coaches
- Criteria for Selecting Phase 1 Projects
- Exit Criteria for Phase 1 projects (If any)

This approach enables SLC Coaches to provide maximum value to Integration Partner projects. Identifying the tasks and materials that will meet project needs and developing and meeting a realistic timeline enables the coaches to be best prepared in minimal time.

The two most important aspects are selecting coaches and projects. Coaches have been identified and will bring the appropriate skills and willingness to dedicate their time to assisting project teams to achieve SLC compliance. The projects selected will represent different points of entry in regard to SLC phases. During the project selection process, exit criteria will also be established to indicate when the coaches have successfully helped to implement SLC processes within the project.

### **SLC Coaching Tasks**

SLC Coaching provides guidance to individual project teams, enabling them to align their solution acquisition tasks to those identified within the SLC. The tasks focus on providing the skills required in the coaches, and then applying those skills to selected projects, allowing the coaches an opportunity to practice their SLC skills on a real project.

Tasks fall into two broad categories. One category consists of the tasks required preparing coaches for their role in gaining adoption of the SLC within FSA. These tasks include:

- Identifying all existing materials pertinent to the SLC Deployment effort
- Updating and standardizing all SLC documents
- Designing and developing materials that build coaching skills
- Building SLC and Coaching skills in designated SLC Coaches
- Practice Coaching

The second set includes the tasks completed by the coaches while guiding the selected projects in SLC principles. These tasks include:

- Introducing SLC concepts to the project
- Working with Project Managers to gain an understanding of their projects
- Determining in which Phase the project resides
- Identifying and tailoring the most applicable tools and techniques accordingly
- Providing guidance in the use of the appropriate tools and techniques
- Review with project managers to determine if project is meeting self mandated time table
- Develop plan for incorporating SLC principles and tools throughout the remainder of project lifecycle
- Provide guidance to project until exit criteria are met.

As stated above, prior to actually working with the projects in their adoption of SLC principles, the other components of the SLC Approach must be completed. The first, being the completion of SLC Materials.

### **SLC Coaching Materials**

There are three separate categories of materials to support the SLC Coaching effort:



- Coaching Skill Development Materials
- SLC Coaching Skill Development Materials
- SLC Deployment Materials

Coaching Skill Development Materials assist the SLC Deployment team prepare SLC Coaches for their role. These materials provide guidance in building the core skills required in successful coaches. Skills such as establishing relationships, achieving buy-in and developing trust. These materials and coaching session's build on previous Public Strategies Group (PSG) led Coaching Development Courses.

SLC Coaching Skill Development Materials provide the tools to increase the knowledge and skills that coaches need specific to the SLC. This knowledge includes an understanding of the phases, the specific tools available within each phase and how to identify the SLC tools most applicable based on project needs. To be truly effective, coaches need an intimate knowledge of the SLC, allowing them to effectively apply the fundamentals to each project on which they consult.

SLC Deployment Materials are the tools used to align a project with the practices prescribed by the SLC. These materials are based upon six key implementations steps and include introductory materials to communicate concepts to new audiences, process guides that define how best to utilize the SLC and templates and tools used throughout the life of a project. Coaches and Project Managers together determine the tools that provide the most value to the project based on the phase of the project and challenges being confronted.

### **SLC Deployment Timeframe**

The SLC Coaching effort involves an integrated work effort. The effort encompasses developing materials,

developing coaches, and initiating a communication-working group.

As discussed above, materials to support the coaches, both in preparation for and during SLC deployment were created. The materials supporting the adoption of the SLC (tools, methodologies and process guides) are complete and will only require modification and the SLC and the deployment effort continue to evolve.

A project communication plan will be initiated during the upcoming Coaches working sessions. At this time communication planning tools and techniques will be reviewed. Upon finalizing the plan, SLC coaches will be fully equipped to execute the necessary steps for the communication effort surrounding SLC deployment and eventual institutionalization.

During November 2002, the SLC Coaching team reviewed the majority of the deployment materials - including the SLC Coach's Toolkit. This was intended to ensure the coaches' needs were met in the use of the various SLC tools. At the end of these sessions, FSA's SLC Coaching team made recommended changes to the toolkit that were then incorporated.

The SLC Coaching Deployment effort will culminate with two interactive sessions during which the transitioning of Deployment efforts to the SLC Coaches will occur. Following these meetings, SLC Coaches will meet with Project Managers to provide them with an introduction to SLC concepts, information to help them gain an understanding of the project's SLC compliance requirements, and next steps/ With a shared understanding of the SLC and project, the Coach and Project Manager will determine the relevant SLC artifacts and develop a schedule for completion of



the work products. After completing a phase the Coach and the Project Manager will identify a plan for continuing to achieve SLC compliance for the duration of the project as well as how the coach can best support the project going forward.

A detailed workplan, outlining the SLC coaching design, development and delivery activities can be found in Appendix A – SLC Deployment Plan.

### **Criteria for Selecting Coaches**

The SLC coaches were selected based on skills or experience that they possess. These skills will hopefully have a direct correlation to their success as coaches. Once selected, the coaches become responsible for gaining a thorough understanding of the SLC and facilitating the adoption of the SLC on the project teams to which they are assigned as a coach. The following are skills required of coaches and their relevance to the SLC Coaching project:

- **Project Management Skills** – The SLC provides structure to the process of acquiring, implementing and managing a solution, similar to the planning managing, controlling and reporting inherent in project management
- **Communication Skills** – Coaches interview project managers, providing guidance to the managers while receiving feedback regarding project concerns
- **Problem Solving** – During interviews with project managers, coaches determine the aspects of the SLC that most directly address the issues facing the project
- **Analysis** – Successfully meeting needs requires analyzing an issue to determine the root cause of the problem
- **Familiarity with FSA projects** – To address issues, Coaches need to

recognize the objectives of the project and the rationale for undertaking it

- **Advising/Mentoring** – Coaches will be working in an advisory capacity to projects and should be familiar with how to appropriately interact with project managers
- **Interest/Enthusiasm** – Given that coaches represent the ‘face’ of the SLC, it is vital that coaches possess and display a personal interest and enthusiasm in seeing the SLC succeed on the projects they support as well as throughout FSA as a whole
- **Follow Through/Responsiveness** – Acting as an advisor to individual projects requires the SLC Coach to take the initiative to track progress, respond to any questions and follow through to ensure the adoption of the SLC
- **Interpersonal Skills** – Coaches need the ability to relate to Project Managers on the appropriate level, striking a balance between coaching the project to the appropriate solutions (coaching not lecturing) and not completing all SLC tasks for the project
- **Available Time** – Coaches will be integral to not only the coaching of Phase 1 Projects but will also be involved in the design and development of materials that are being introduced. Therefore, the Coach needs adequate time available to devote a defined percentage of work time to the SLC project

A detailed description of what is expected of SLC Coaches is located in Appendix B- SLC Coaching Roles and Responsibilities.

### **Criteria for Selecting Phase 1 Projects**

Phase 1 Projects will be selected based on the following characteristics:



- **Current Lifecycle Stage** – To best demonstrate the abilities of the SLC, it is beneficial to begin with projects at different stages in the project lifecycle. The variety of phases allows for demonstrating the widest breadth of tools and techniques
- **Size and Complexity** – The projects utilized will display a range of size and complexity, allowing Coaches to gain an understanding of the challenges inherent with projects of different scales
- **Successes Met** – With the objective of proving the SLC's merit and increasing buy-in among teams, it is imperative that Phase 1 projects selected have met previous success, increasing their willingness to participate and acceptance of process changes
- **Interest/Enthusiasm** – Given that SLC deployment requires participation and input from Phase 1 projects as well as incorporating new processes, to be successful, projects need to display an interest and enthusiasm for the objectives of the project

#### **Exit Criteria for Phase 1 Projects**

The exit criteria used as indicators of a successful pilot of the SLC align with the objectives previously identified and ensure that the objectives are met prior to the SLC Coach completing their project guidance. The Coaching activities have been intentionally designed to allow for flexibility on the amount of time spent by Coaches in working with the projects as well as a coach's individual work style. Exit criteria for phase 1 projects will include:

- Understanding and adoption of SLC tools and techniques by project management
- Project activities aligned to meeting the desired end goal

- Achievement of SLC compliance for a exiting phase
- An action plan/agreement regarding the coach's continued interaction with the project team
- Recognition by the project of SLC's contribution to improved performance
- Interest and enthusiasm for continuing use of the SLC and further coaching activities

The recommendation for coaching the Phase 1 projects is for a coach to spend between 2 and 4 hours a week over a course of 4-8 weeks or as necessary to assist the project team in achieving SC compliance in their current phase. Upon completion of this initial phase of support, the project is reviewed to determine if the stated exit criteria have been met and whether the project obtains an SLC compliance rating. If all objectives are fulfilled the Coach may then decrease their time spent with the project to a level jointly determined to be appropriate by the Project Manager and coach. If exit criteria have not been met, the Coach should consider continuing with the same level of support, focusing efforts on meeting the specific exit criteria in which the project had challenges.

#### **Summary**

The deployment effort focuses on enabling SLC Coaches to best acquire the knowledge and skills needed to guide FSA projects through the SLC. The coaches will then work with projects to incorporate SLC processes and artifacts into the project's duration. The SLC Coaches act as facilitators, guiding the projects to understand where the SLC can provide assistance and incorporating the SLC into day-to-day project management. It is not the responsibility of the coaches to complete the artifacts for the project team.



Enabling and empowering the coaches is the first step toward increasing the adoption of the SLC throughout FSA. Following the SLC from the onset enables a project to focus on a desired outcome and build all work efforts toward achieving it, which eliminates obstacles that commonly interfere with project success.