Migration Strategy to an Enterprise Service Portfolio

Date: *[Report Date]*

ORGANIZATION: *[Organization Name]*

ORGANIZATION POC: *[Organization POC Name]*

SMART-ESP TEAM

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Executive Summary

The migration of an existing process area to an Enterprise Service Portfolio (ESP) is a task that requires upfront and hands-on analysis of the business and technical drivers, the existing legacy system base, and the potential return on investment of this effort. The Service Migration and Reuse Technique - Enterprise Service Portfolio (SMART-ESP) is a way of making this initial analysis.

A preliminary analysis of the migration of *[process area]* of *[Client organization’s name]* to an ESP approach shows it is feasible given the organization’s business and technical environment and constraints. Several assumptions were made in this assessment.

* *[List of Assumptions]*

The proposed migration strategy for *[process area]* can be summarized as follows:

1. *[List of Migration Strategy Steps/Elements]*

# Development Approach for Migration Strategy

The analysis of *[Process Area Name]* processes within *[Organization Name]* was conducted using a variation of the Service Migration and Reuse Technique (SMART) [Lewis 2008]. The Service Migration and Reuse Technique - Enterprise Service Portfolio (SMART-ESP) identifies process area(s) within the client organization that are ideal candidates for migration to a service portfolio approach. The goal of SMART-ESP is to help shape a migration strategy for an organization, along with an understanding of cost and risk involved. SMART-ESP analyzes the viability of such a migration to a service portfolio approach by answering these questions:

* What is the business case for performing this migration?
* Which business process areas are most appropriate for such a migration?
* What are the candidate services that would make up the portfolio?
* Which legacy system components can be used to implement these services?
* What changes to components are needed to accomplish the migration?
* What migration strategies are most appropriate?
* What are the preliminary estimates of cost and risk?

SMART-ESP consists of three elements

* A process that gathers information about the goals and expectations of the migration effort, candidate process areas, legacy systems and the target SOA environment. The process uses this information to analyze the gap between the existing and the target state
* A SMART-ESP Interview Guide (SMIG) that guides discussions for the SMART-ESP activities
* Templates for output products

In addition, there is a tool to support the information gathering portion of the process.

The SMART-ESP process has five activities, as presented in Figure 1.

* *Establish Context:* This develops an understanding of the goals and expectations of the migration effort. It seeks to learn about the present (“as-is”) state, whatever is known about the “to-be” state, the drivers for change, as well as constraints on any change.
* *Identify Expectations, Constraints, and Strategy*: This activity gathers information about the planned strategy of the organization for migrating to a service portfolio approach. The goal is to understand the organization’s expectations on how a service portfolio approach will come about, how such an approach will benefit the organization, and how prepared the organization is to make the changes that will be necessary.
* *Identify Desired Service Capabilities*: This activity builds on the information gathered in the previous sections; given the strategic business goals of the organization, and its present understanding of SOA migration, this section seeks to identify the process area(s) that is most appropriate for migration, analyzes its key operational processes, and considers the specific services that will support those processes.
* *Analyze Legacy Assets*: This activity gathers information on the general state of the organization’s legacy software assets, in particular, those systems that support the operational processes identified in the previous section
* *Establish Service Portfolio*: The information gathered in the previous activities generates migration issues that need to be addressed by the migration strategy, which includes the selection of a candidate process area and a set of the portfolio’s services. This information also provides the basis for estimates of cost, effort and risk of migration, which will place constraints on the migration strategy.

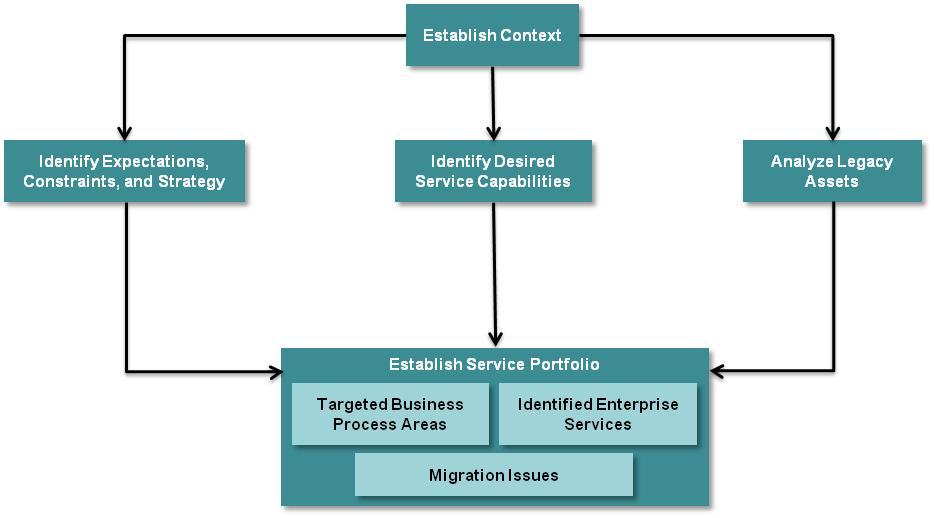


Figure . SMART-ESP Process Activities

The first four activities, *Establish Context*, *Identify Expectations, Constraints, and Strategy,* *Identify Desired Service Capabilities, and Analyze Legacy Assets,* were executed through direct interviews and presentations by *[List of Presenters and Presentations. Documentation Reviewed. Any Other Information Sources.]*. The selected target SOA environment for this effort was *[High-Level Name for Target SOA Environment, e.g. Web Services, Proprietary, Organization’s Existing Infrastructure]*.

For the *Establish Service Portfolio* activity we relied on information from *[All Information Sources, e.g. Interviews, Code Reviews, Code Analyses, Documentation Reviews]*.

Section 2 contains the proposed migration strategy, as well as a set of migration issues identified during the process. Section 3 contains the detailed findings that support the migration strategy. Section 4 contains general conclusions and next steps.

# Migration Strategy

The following migration strategy follows the SMART-ESP approach in analyzing the feasibility of migrating *[Selected Business Process Area]* to a service portfolio approach on [*High-Level Name for Target SOA Environment, e.g. Web Services, Proprietary, Organization’s Existing Infrastructure]* SOA environment. The rationale and details for the migration strategy can be found in Section 3.



## Migration Strategy Elements

*[Process Area Name]* supports the following business processes:

* *[Business Process 1 Name from Process-Service Table]: [Candidate Service 1 Short Description]*
* *[Business Process 2 Name from Process-Service Table]: [Candidate Service 2 Short Description]*
* *[Business Process N Name from Process-Service Table]: [Candidate Service N Short Description]*

A high-level mapping between these processes and the services within the portfolio to support them is depicted in Figure 2.

*[Notional Process-Service Mapping]*

Figure . Notional Process-Service Mapping

These processes are currently supported by the following legacy systems:

* *[Legacy system 1 Name from Component Table]: [Brief description of the state, quality, and suitability of the system for service-enabling*
* *[Legacy system 2 Name from Component Table]: [Brief description of the state, quality, and suitability of the system for service-enabling*
* *[Legacy system N Name from Component Table]: [Brief description of the state, quality, and suitability of the system for service-enabling*

The following services will need to be obtained by means other than enabling the organizations’ legacy systems:

* *[Service 1 Name from Process-Service Table]: [Short Description and Rationale for sourcing decision]*
* *[Service 2 Name from Process-Service Table]: [Short Description and Rationale for sourcing decision]*
* *[Service N Name from Process-Service Table]: [Short Description and Rationale for sourcing decision]*



### Migration Strategy Step/Element 1

*[Rationale for Migration Strategy Step/Element 1]*

### Migration Strategy Step/Element 2

*[Rationale for Migration Strategy Step/Element 1]*

### Migration Strategy Step/Element N

*[Rationale for Migration Strategy Step/Element 1]*

## Migration Issues

What follows is the list of migration issues that were captured during the SMART-ESP engagement. The above migration strategy contains mitigation strategies for each of these issues.

Table . Migration Issues

*[Migration Issues List; Add/Modify/Delete Column Names as Fit]*

# Summary of Findings



## Migration Context

### Business and Technical Context of the “as-is” State

*[Content of Discussion Topics from SMIG that are Relevant to Support Migration Strategy]*

### Stakeholders

*[Content of Discussion Topics from SMIG that are Relevant to Support Migration Strategy]*

### Business Drivers for a Service Portfolio Environment

*[Content of Discussion Topics from SMIG that are Relevant to Support Migration Strategy]*

## Identify Expectations, Constraints and Strategy

*[Content of Discussion Topics from SMIG that are Relevant to Support Migration Strategy]*

### Organizational Aspects of the Enterprise

*[Content of Discussion Topics from SMIG that are Relevant to Support Migration Strategy]*

### Planned Migration Strategy

*[Content of Discussion Topics from SMIG that are Relevant to Support Migration Strategy]*

## Identify Desired Service Capabilities

### Candidate Process Areas for Migration

*[Content of Discussion Topics from SMIG that are Relevant to Support Migration Strategy]*

### Analysis of Operational Processes

*[Content of Discussion Topics from SMIG and System Architecture Views that are Relevant to Support Migration Strategy]*

### Candidate Services for Portfolio

*[Content of Discussion Topics from SMIG that are Relevant to Support Migration Strategy]*

## Analyze Legacy Assets

### Overview of Legacy Technology Base

*[Content of Discussion Topics from SMIG that are Relevant to Support Migration Strategy]*

### State of the Systems for Migration

*[Content of Discussion Topics from SMIG that are Relevant to Support Migration Strategy]*

# Conclusions and Next Steps

*[High-Level Summary of Migration Strategy]*

*[High-Level Summary of Cost and Effort Estimates According to Component Table and Proposed Enterprise Service Table. Additional Cost Items Identified Not Included in Previous Amount.]*

*[Recommended Next Steps]*

References

[Lewis 2008]

Lewis, Grace; Morris, Edwin J.; Smith, Dennis B.; Simanta, Soumya. SMART: Analyzing the Reuse Potential of Legacy Components in a Service-Oriented Architecture Environment (CMU/SEI-2008-TN-008). Software Engineering Institute, Carnegie Mellon University, 2008. http://www.sei.cmu.edu/library/abstracts/reports/08tn008.cfm

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