# SOA Migration, Adoption, and Reuse Technique
## Context-based analysis to support migration to SOA environments



### Making Sound Decisions about Migration to SOA Environments

By moving to a service-oriented architecture (SOA) environment, you can gain a significant return on the investment through reusing components of your legacy systems. However, migrating to an SOA environment is neither automatic nor easy..

Just a few of the questions that you'll need to address are

- How will the services be used?
- How will performance be affected?
- What security measures need to be taken?

In addition, you'll need to identify those components of your legacy systems that can be exposed as services. And, for each of those components, you'll need to develop estimates of the cost to turn them into services, as well as understanding of the risks involved.

### SMART—A Context-Based, Hands-on Approach to Migrating to SOA Environments

The SEI SOA Migration, Adoption, and Reuse Technique (SMART) has been helping organizations for the past four years to make initial decisions with confidence about the feasibility of migrating to SOA environments.

SMART can work for your organization to

- establish the context for migration
- identify which services are appropriate
- gather data about the legacy system(s) considered for migration
- describe the targeted SOA environment
- understand the changes that would have to be made to the selected legacy system(s) in order to be migrated to the target SOA environment
- develop a migration strategy that includes the feasibility, risks, and costs of migration and identifies a pilot project

### A Family of SMART Approaches to Match Your Need

We designed SMART to be a family of approaches to accommodate different starting points that match particular organizational needs.

No matter which SMART family member your organization uses, you will develop a migration plan.

### About SEI SMART

- enables an organization to develop migration strategies
- uses a disciplined and repeatable process
- produces a list of specific components that can be migrated and used as services
- surfaces areas of risk involved in the migration effort
- permits a thorough examination of the costs involved in a migration effort

The SMART family includes

- SMART-AF (Adoption Feasibility)—establishes whether your organization can migrate toward an SOA environment
- SMART-ENV (Environment)—digs into the costs and risks of migrating to a target SOA environment
- SMART-SYS (System)—aids your organization, if you want to develop and maintain a complete service-oriented system
- SMART-ESP (Enterprise System Portfolio)—guides you in selecting and creating services from your legacy systems
- SMART-MP (Migration Pilot)—helps you select a pilot project for an initial implementation of your migration strategy

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### Start SMART Where You Are and Move toward a Migration Plan

If, for example, your organization has decided that adopting SOA could help but has not determined its feasibility or formed a migration strategy, SMART-AF can help you determine whether and how to proceed (as shown in the figure at right).

Similarly, you might find that you want to adopt SOA but are not sure which legacy systems contain components that can be reused as services.

Or, you might have selected an SOA environment to migrate toward. In this case, you could use SMART-MP to identify a pilot project that reveals what truly will be needed for migration to that environment.

### Applying SMART

The SEI can work with you to apply SMART in your organization through

- Executing a SMART engagement using any of the SMART family members

- Training in the SMART concepts, process, and workshop activities

- Certifying people in your organization as SOA-SMART team leaders who can conduct SEI-authorized SMART engagements (provided that your organization becomes an SEI partner).



## SOA Adoption that Begins Where You Are: The Family of SMART Approaches
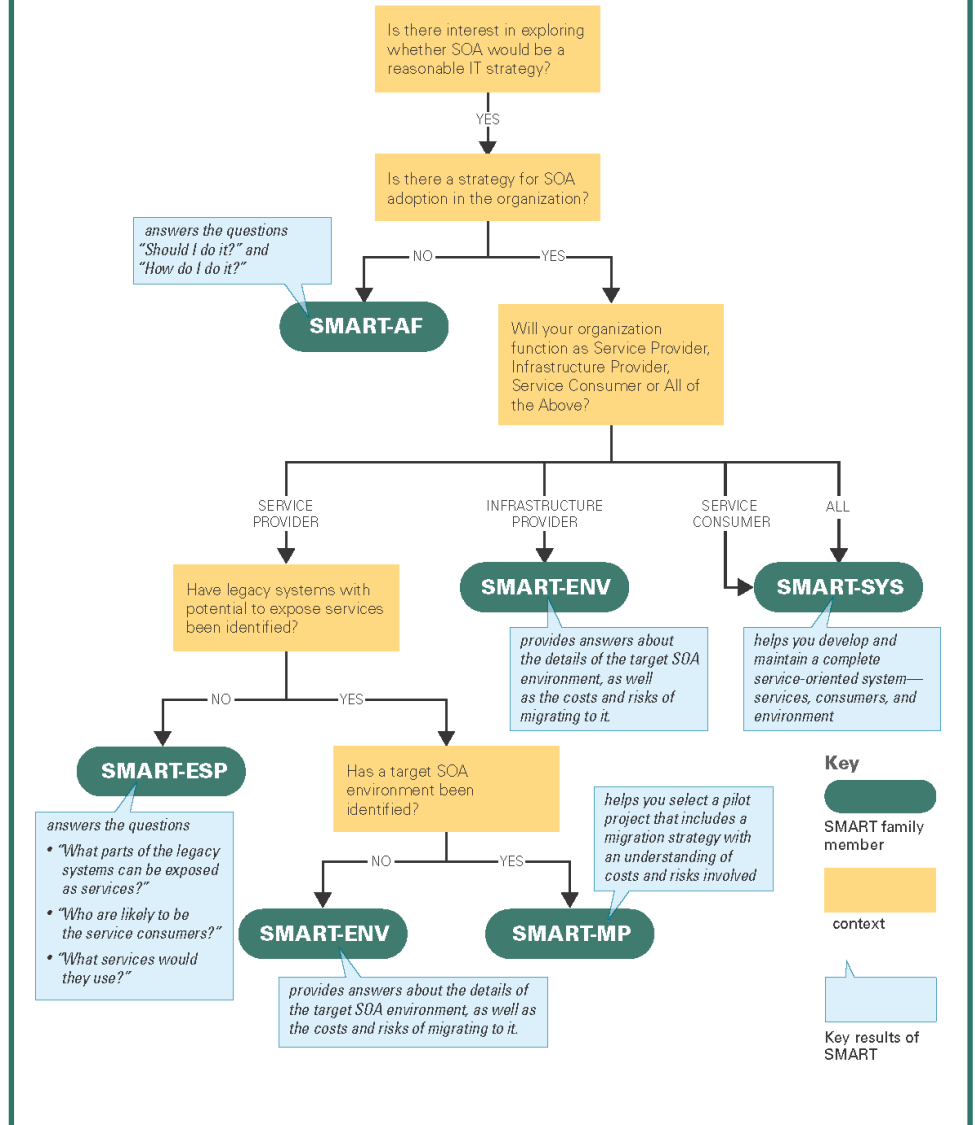
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