1.5 Paradigma de diseño SOA, los cuatro pilares de adopción.

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Overview

- The attainment of the goals and benefits commonly associated with service-oriented computing and SOA require the application of the service-orientation paradigm.

- Service-orientation provides us with a well-defined method for shaping software programs into units of service-oriented logic that we can legitimately refer to as services.

- Each such service that we deliver, takes us a step closer to achieving the desired target state represented by these strategic goals and benefits

Design Paradigm

- Proven practices, patterns, principles, and technologies exist in support of service-orientation.

- However, because of the distinctly strategic nature of the target state that service-orientation aims to establish, there is a set of fundamental critical success factors that act as common pre-requisites for its successful adoption.

- These critical success factors are referred to as pillars because they collectively establish a sound and healthy foundation upon which to build, deploy, and govern services.

Four pillars of service-orientation

- *Teamwork* – Cross-project teams and cooperation are required.
- *Education* – Team members must communicate and cooperate based on common knowledge and understanding.
- *Discipline* – Team members must apply their common knowledge consistently.
- *Balanced Scope* – The extent to which the required levels of Teamwork, Education, and Discipline need to be realized is represented by a meaningful yet manageable scope.

Four pillars

- The existence of these four pillars is considered essential to any SOA initiative.

- The absence of any one of these pillars to a significant extent introduces a major risk factor.

- If such an absence is identified in the early planning stages, it can warrant not proceeding with the project until it has been addressed – or – the project's scope has been reduced.

Teamwork

- Whereas traditional silo-based applications require cooperation among members of individual project teams, the delivery of services and service-oriented solutions requires cooperation across multiple project teams.

- The scope of the required teamwork is noticeably larger and can introduce new dynamics, new project roles, and the need to forge and maintain new relationships among individuals and departments.

- Those on the overall SOA team need to trust and rely on each other; otherwise the team will fail.

Education

- A key factor to realizing the reliability and trust required by SOA team members is to ensure that they use a common communications framework based on common vocabulary, definitions, concepts, methods, and a common understanding of the target state the team is collectively working to attain.

- To achieve this common understanding requires common education, not just in general topics pertaining to service-orientation, SOA, and service technologies, but also in specific principles, patterns, and practices, as well as established standards, policies, and methodology specific to the organization.

- Teamwork + Education = Knowledge

Discipline

- A critical success factor for any SOA initiative is consistency in how knowledge and practices amongst a cooperative team are used and applied.

- To be successful as a whole, team members must therefore be disciplined in how they apply their knowledge and in how they carry out their respective roles.

- Required measures of discipline are commonly expressed in methodology, modeling, and design standards, as well as governance precepts.

- Even with the best intentions, an educated and cooperative team will fail without discipline.

Balanced Scope

- In some IT enterprises, especially those with a long history of building silo-based applications, achieving these qualities can be challenging.

- Cultural, political, and various other forms of organizational issues can arise to make it difficult to attain the necessary organizational changes required by these three pillars.

- How then can they be realistically achieved? It all comes down to defining a balanced scope of adoption.

Balanced Scope

Common factors involved in determining a balanced scope include:

- cultural obstacles
- authority structures
- geography
- business domain alignment
- available stakeholder support and funding
- available IT resources

SOA Manifesto

"The scope of SOA adoption can vary. Keep efforts manageable and within meaningful boundaries."

– SOA Manifesto

http://www.soa-manifesto.org/default_spanish.html