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A Transformation Framework Proposal for Managers in Business Innovation and Business Transformation Projects-An information system's atomic architecture vision

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Abstract

A fundamental architecture element in transforming a traditional business environment and its business information system into an innovative automated and lean business platform is the role of the information system's building vision; that should be crafted in an applicable framework. This framework should include easy to integrate patterns. The proposed just-in-time framework can change the information system's architecture and its implementation outcomes. The atomic information system architecture's role and applied the patterns are of crucial importance for the implementation phase of the complex business transformation projects; where these patterns can be adapted in a just-in-time manner, using atomic building blocks^{1,2,26}. There is also a need to govern (or control) the atomic information system architecture's patterns for business transformation projects; unfortunately an adaptable atomic information system architecture pattern for such projects is inexistent. An atomic information system architecture pattern can be also used in the enterprise's production activities which comes after the finalization of the implementation phase of business transformation project (business transformation project), to control and govern the resultant business system. The atomic information system architecture's pattern main component is the atomic building block that manages the implementation of autonomous business service transactions. In this article the author presents a set of atomic information system architecture recommendations in the form of reusable patterns to promote an optimal information system's architecture.

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"Atomic information system architecture, the vision, atomic business blocks, just-enough architecture and optimal business integration"

1. Introduction

In this research paper and phase, the author presents, an optimal atomic information systems' architecture that conforms to fast business transformation projects' execution. Most mechanistic organizations will be challenged to use business transformation or enterprise architect projects in order to change their routine business operations, re-engineer their business environment, or to re-schedule various existing business processes. Business transformation projects enable the automation of business tasks that were before performed manually and as shown in Fig. 1. such projects need an iterative process like the architecture development model to successfully implement it^{3,4}. As already mentioned the research topic is about managing complexity in business transformation projects using standardized methodologies; where all these methodologies have many abbreviation and terms that makes the reading of such topics difficult, but unfortunately that is the nature of such fields. There also a need that the valuable reader has extensive knowledge in enterprise architecture, modeling standards and business engineering.

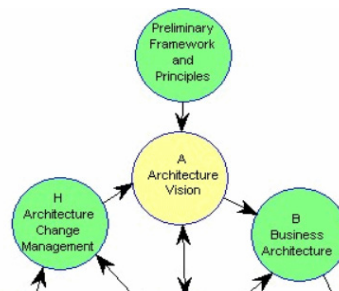


Fig. 1. The architecture development method's vision phase interaction with other phases⁴.

Adaptive lean information systems' environments, which are based on stateless business services in the form of atomic business services is a major business paradigm shift. Stateless atomic business services standards break-up the business systems' nodes of an information system into independent components that can interact together over the network, with a global unique interface definition. This paper proposes the atomic information system architecture concept, to help business transformation manager's, enterprise architects and system designers in building modern generic atomic business services based business transformation projects⁵. This is of significance when knowing that a small percentage of business transformation projects succeed^{6,7,8}, hence the information systems' projects activities, and the business transformation managers' skills are the main prerequisite to enable success. This article is a part of a series of articles on business transformation projects and enterprise architecture that focuses on the role of information system's building.

2. "The research model and Environment"

This clustered research project is based on the action research model and heuristics, where its main phases are: a) the proposal phase; b) the research question phase definition; c) the literature review phase; d) the research model phase; and e) the research project's prototype. For this research part the prototype verifies the impact of an atomic information system architecture impact on the business transformation projects' implementation phase^{1,9}.

2.1. The research question

The global topic's final research question (RQ) is: *"Which business transformation manager characteristics and which type of support should be insured the implementation phase of a (e)business transformation project?"*. The

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