

Convergence of Business Architecture, Business Process Architecture, Enterprise Architecture and Service-Oriented Architecture

Jorge L.C. Sanz, IEEE Fellow

IBM Research
Almaden Research Center
San Jose, California, USA
jorges@us.ibm.com

J. Leon Zhao

Department of Information Systems
City University of Hong Kong
Hong-Kong
jleonzhao@gmail.com

Abstract—Organizations have always been challenged by cost reduction and need for growth. Recently, the economic climate has taken these challenges to a new and unprecedented level. The time to instrument changes in organizations has become shorter than ever. Consequently, business transformation is not longer a project but a continued improvement initiative. With this new normal, the importance and role of architectures in business and information technology should be revisited. Questions such as “How does the ability of an enterprise to respond to change is enhanced / impeded by these architectures ?” and “Why do organizations need so many ‘architectures’ ?” are being formulated by business leaders and analyst firms.

This IEEE Workshop has the goal of addressing these questions by providing a new space for academic and professional interaction. The intent is to report and discuss rigorous technical progress made in the field, initiatives that may be needed on a regional or global basis, emerging professional practices and standards.

Keywords: *Business Architecture; Enterprise Architecture; Business Process Management; SOA; Business-IT Convergence; Business – IT Architecture Profession*

I. THE ARCHITECTURE CONVERGENCE

The convergence across the main four architectures being consumed by enterprises today seems unavoidable and desirable. These four domains of technical and professional practice have existed for different amounts of time. Enterprise Architecture, for example, has been around for several decades while Service Oriented Architecture (SOA) and Business Architecture (BA) are relatively newer. On the other hand, Business Process Management (BPM) is a multi-decade endeavor; and so on. But the four architecture practices have had a common thread: isolation. Even the intersections of these domains with Information Technology have been pretty siloed and disconnected.

The issues are how this convergence should be obtained and in what form the convergence (or divergence) will provide the value necessary for the priorities organizations face today and in the near future. Unquestionably, the fact that there are so many “architectures that matter” in an organization is a signal that return-on-investment may not be satisfactory. This First International Workshop from

IEEE starts paving a much needed academic and professional roadmap to address the multifaceted architecture world in business and IT. Several papers in this Workshop have been submitted and selected after the usual refereeing process to be presented in Luxembourg.

The papers published in the Proceedings of the Workshop cover three main themes. First, the intersections across Enterprise Architecture, Business Process Management and to a lesser extent, also SOA, are addressed in several papers offering complementary and converging viewpoints, including progress on modeling standards and languages. BPM has driven enormous market interest and economic activity but its practice has been often divorced from Enterprise Architecture and Business Architecture. Second, Decision Making and Enterprise Modeling require much deeper integration across the four architectures. While there has been some activity on this subject, the works on Business Rules - Business Process Modeling Notation and that of Functional Decomposition shed new light to the corresponding fields. Third, Business Architecture has promised to simplify some of the long investment cycle in Enterprise Architecture. This promise still remains to be seen in practice. Two papers on Business Architecture present technical ground and BA as an emerging profession.

Prof. Dijkstra’s concepts from three decades ago, addressing the “computer science fraternity fads and fashion”, still hold and provide some important guidance [1]: “Write a paper promising salvation, make it *structured something*, or a *virtual something*, or *abstract* or *distributed* or *higher order* applicative and you can be almost certain of having started a new cult.” He also continued more specifically: “An unmistakable signal of maturity would be a consensus ‘about what matters’ among its leaders”. The latter goal is what this new forum has set as its main strategic target, i.e., to reach an agreement about what matters and how to involve and serve the academic and industry communities beyond the Workshop. This activity is definitely not about a new cult or another silo.

REFERENCES

1. E. Dijkstra. Quotation *in Computing*, October 4th, 1979.