Enterprise Architecture Definition

Submitted by the EA Research Forum which is a collaborative between The Open Group South Africa, Meraka Institute, Real IRM, Telkom, Unisa and the University of Pretoria

> **Enterprise Architecture is the continuous practice of describing the essential elements of a sociotechnical organization, their relationships to each other and to the environment, in order to understand complexity and manage change.**

The above definition is based on Dr. Sam Vaknin definition of definitions[1] that indicates that a definition should explain the meaning, use and function, essential characteristics, and the differentia of the concept.

Another consideration was to determine whether it should address architecture in terms of:

- the representation (architectural description)

- the style of an instantiation (e.g. client/server architecture)

- the profession, or

- the process.

It was agreed to only address the representation, profession and process as the three primary concepts that are generally referred to when the concept architecture is used.

In terms of Vaknin's definition the following elements of the definition addresses his requirements for a definition:

- **Meaning:** "the continuous practice of describing" – highlights the fact that it is an ongoing process or capability within an organization and not a once-off project, as well as the primary activity of architecture which is to describe the organization based on Zachman's definition of EA[2] as "descriptive representations that are relevant for describing an enterprise".

- **Use and function:** "understand complexity and manage change" based on Zachman's view[3] that "complexity and high rates of change are the challenge of the Information Age Enterprise and neither can be accommodated without Enterprise Architecture." This doesn't constrain the architecture effort to conceptual work only, but allows for work at all perspectives at any level of detail as long as it supports the function.

- **Essential characteristics:** "elements of a sociotechnical organisation, their relationships to each other and to the environment". This constrains EA to human organizations where sociotechnical refers to the[4] interrelatedness of social and technical aspects of an

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[1] Vaknin, S. *The Definition of Definitions*. [Online]. Available WWW: http://samvak.tripod.com/define.html (Accessed 6 April 2009).

[2] Zachman, J.A. 1996. *Enterprise architecture: the issue of the century.* Zachman International

[3] Zachman, J. A. 1999. *Enterprise Architecture: Looking Back and Looking Ahead.* Zachman International

[4] Wikipedia. *Sociotechnical systems theory*. [Online] Available WWW: http://en.wikipedia.org/wiki/Sociotechnical_systems_theory (Accessed 6 April 2009)

organization. It also highlights the components that are described by EA based on the IEEE 1471[5] definition of architecture.

- **Differentia:** "essential" differentiates EA from other disciplines such as system engineering and design.

The recommended definition addresses the:

- **Representation:** "the essential elements of a sociotechnical organization, their relationships to each other and to the environment",

- **Process:** "describing" ... "understand complexity and manage change", and

- **Profession:** "continuous practice".

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[5] ISO/IEC 42010:2007. *Systems and Software Engineering -- Architecture Description*