White Paper
Why TOGAF® 9 Certification is Essential for all Enterprise Architects

WP0031 | May 2012

"In the 17th century, the English statesman and Father of Modern Science, Francis Bacon (1561-1626), believed that natural philosophy (what we call science) could be applied to the solution of practical problems, and so, the idea of modern technology was born. For Bacon, the problem was this: how could man enjoy perfect freedom if he had to constantly labour to supply the necessities of existence? His answer was clear - machines. These labour saving devices would liberate mankind, they would save labour which then could be utilised elsewhere. 'Knowledge is power,' said Bacon!"

http://www.historyguide.org/intellect/lecture17a.html[1]

Louw Labuschagne CBPA®

Louw is a Managing Partner at CS Interactive Training, a specialist IT consultancy focused on providing methodology consulting, training and systems to organizations who need to build internal capacity within their Analysis, Architecture, Design, and Requirements Management environments. Louw is passionate about all aspects of information management and has had the opportunity to act as strategist, architect, speaker, trainer, analyst, modeler and developer within this field over the past 20 years.

The relationship between Human, Process and Technology concepts is still a hot topic for organizations, three centuries after Francis Bacon first described how technology can be used to automate processes at the start of the industrial revolution. Nothing much changed since then, if you read Ross, Weil and Robertson's book Enterprise Architecture as Strategy (one of my favourite books). In this book the authors identified the importance of understanding the level of business process integration and standardization as a basis for optimizing the use of technology within the organization.

Access our **free**, extensive library at
www.orbussoftware.com/community

Globalization and the need to stay competitive is putting pressure on organizations to accelerate the rate of change and innovation. Organizations have in turn realized that in order to achieve this they need to understand the architecture of the business and the relationships between key elements. This need is at the heart of the growth in job offerings for Enterprise Architecture professionals.

At present, demand is outstripping the supply of Enterprise Architecture (EA) professionals and there is a need to fast-track the up-skilling of new EA professionals. EA's must not only be technically proficient, but a good architect must also have the ability to communicate his ideas and designs to a broad range of stakeholders inside and outside of the organization.

A large number of professionals and organizations are using TOGAF 9 Certification courses to try and build EA capacity within an organization.

Enterprise Architect Education

The exact skills required for Enterprise Architecture professionals differs between organizations, but they need a proper grounding in organizational theory & business strategy, process analysis and design, information systems management and technology concepts.

The Association for Computing Machinery's Education Board published a 2010 Information Systems undergraduate model curriculum that includes Enterprise Architecture as a core stream. The learning objectives of the proposed ACM EA course include:

- Understand a variety of frameworks for enterprise architecture analysis and decision making.

- Evaluate the total cost of ownership and return on investment for architecture alternatives.

- Utilise techniques for assessing and managing risk across the portfolio of the enterprise.

- Evaluate and plan for the integration of emerging technologies.

- Understand the core concepts of data/information architecture and evaluate existing data/information architecture designs.

- Plan for business continuity.

- Understand the benefits and risks of service oriented architecture.

- Understand the role of audit and compliance in enterprise architecture.

Universities world-wide are currently adopting the ACM curriculum into their undergraduate IS degrees, ensuring that organizations in the future (10 + years) will have access to adequately educated professionals, but it still does not help address the short-term gaps. There are several

post-graduate degrees from a few American and European Universities, pitched at an MBA level, which address the skills gap of current professionals.

Although the ideal situation would be for Enterprise Architects to receive a formal tertiary education, the current set of practitioners in the field have gained their knowledge and expertise through on-the-job experience. It is therefore difficult to verify and validate the skills of an EA professional, because having 5 years of experience in Architecture design in one organization is not comparable to a similar time of work experience in a different organization.

TIP: I found the Skills Framework for the Information Age (SFIA) very useful in defining the skills for a range of enterprise architecture related roles in organizations. The new version 5 of SFIA has refined the skills set even further and is applicable to both the IT department and business units with people who need to play a more information centric role.

Skills Framework for the Information Age http://www.sfia.org.uk/

Enterprise Architect Skill Certification

Architecture Certification programs are independent mechanisms that can be used to verify the skills of Architecture professionals. These certification programs normally require the candidate who is applying for certification to provide a portfolio of evidence of actual work products delivered in projects. The portfolio is then analysed by certified professionals and the process continues with peer interviews to ascertain if the candidate has the minimum set of skills required to be awarded a professional certification.

The Open Group Certified Architect (Open CA) Program is a well-respected and independent global certification program for certifying skills and experience in the Architecture community. Candidates can apply for different levels of Open CA certification, ranging from Level 1 for junior architects to Level 3 for experienced architects with large successful projects.

The Open Group also allow large organizations to accredit an internal version of the Open CA program, thereby opening up the market for mass certification of real architecture professionals.

NB! There is a clear distinction between Vendor-specific certifications and skills certifications. Normally you need to provide a portfolio of evidence for skills certification, while vendor specific certifications require studying and passing a Prometric or similar exam to gain a specific certification for a product or specific methodology.

Architecture Framework Certification

When training architecture professionals at university, students are taught a wide range of architecture techniques and are introduced to a set of architecture methods without showing preference for a single method or technique. This is a good philosophy to follow to ensure that students are exposed to a wide range of architectural thinking. There is however a gap within the operational environment where organizations adopt specific tools and methodologies when performing design work.

Architecture Skills Certification Programs such as the Open Group Certified Architect program recognise a range of architecture methods that can be used to develop Enterprise Architectures within the organization.

There are a number of architecture method certifications that provide specific training on a single method or framework:

EA Fellows (http://eafellows.com/)

EACOE (http://www.eacoe.org/)

SowellEAC (http://sowelleac.com/curr_bb.htm)

Zachman (http://www.zachman.com/)

TOGAF 9 (http://www.opengroup.org/togaf9/cert/)

Organizational adoption of TOGAF 9

When undertaking actual architecture work Architects must follow a standardized architecture method. By standardizing an architecture approach the value becomes clear very quickly. Without standardization there is no interoperability or any way of implementing or adopting proven best practices in Enterprise Architecture projects.

When comparing TOGAF to the list of other product-specific certifications provided, TOGAF wins hands down, as I have explained in a previous whitepaper, entitled Why TOGAF is Still the De Facto Standard. In that whitepaper I discussed why I believe TOGAF 9 is the de-facto standard for Architecture development; in short I just want to recap by saying:

1. The TOGAF market share is more than 50%, with no real competing framework even close to such a level of penetration.

2. No single organization is dictating the direction that TOFAF must take; The Open Group consortium is member-driven (350+ organizations) and the membership working on TOGAF is collaborative and inclusive.

3. Translations of the TOGAF standard are accessible by non-English speaking architects, something that sets TOGAF apart from any other EA framework. The Open Group is linked to local offices across the world, which is helping to nurture an integrated international Architecture Community.

4. 16000+ Architects are TOGAF certified and are using or adapting the standard for use in their organizations.

5. TOGAF is freely available to members and non-members, royalty free, to use when building their own architectures.

These factors are providing organizations with the confidence to adopt TOGAF as a standard. There is now also and expectation placed upon suppliers to demonstrate their commitment to open standards within the Architecture domain. Architecture professionals from service providers and consulting organizations are also finding that TOGAF certification is a powerful competitive differentiator that provides their customers with a reliable assurance of the skills and capabilities of architecture professionals, and of the quality and interoperability of their services.

NB! TOGAF 9 Certification does not guarantee that the person is a good architect, just that he/she understands and can apply the TOGAF architecture approach using the Architecture Development Method.

The Generalized Enterprise Reference Architecture and Methodology (GERAM)

GERAM, or the Generalized Enterprise Reference Architecture and Methodology is an annex to ISO 15704 requirements for enterprise-reference architectures and methodologies. It describes the methods, models and tools that are needed to build and maintain an integrated enterprise. It can be used as a benchmark to test if Architecture Frameworks are fit-for-purpose.

The conceptual model in Figure 1 highlights the main components defined in GERAM and is overlaid with the TOGAF 9.1 Components to demonstrate that the TOGAF 9.1 Architecture Framework, together with the new ArchiMate 2.0 modeling language (also published by The Open Group and aligned with TOGAF) is a complete enough set to manage any change project in an Organization.
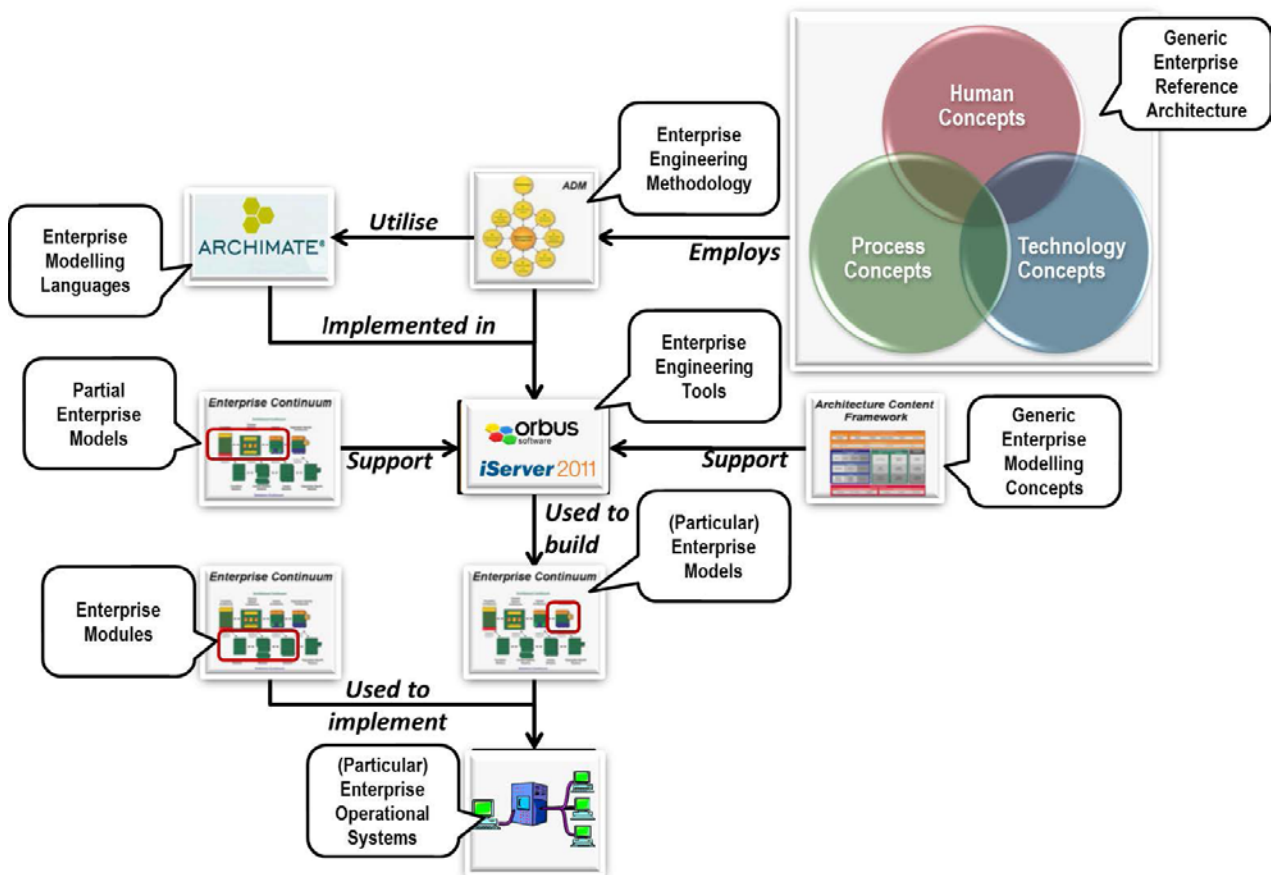

**Figure 1: GERAM Conceptual Model – adapted from GERAM
(http://www.ict.griffith.edu.au/~bernus/taskforce/geram/versions/geram1-6-3/v1.6.3.html#_Toc447291705)**

Conclusion - Why TOGAF 9 Certification is essential for all Enterprise Architects

As Enterprise Architecture practices are maturing within organizations, the need to standardize and integrate not only within the organization, but across business value chains and industries is increasing.

The Open Group as a vendor neutral consortium has member list that includes academic institutions, consulting organizations, service providers and customer organizations. All these members have already adopted, or are in the process of adopting, the TOGAF 9.1 approach to architecture design and management. This is creating demand for qualified architects who have exposure to or an understanding of the latest TOGAF standard.

In this rapidly maturing profession, the adoption of open standards is going to have a significant impact on how organizations increase the speed in which they bring new Architects on-board and redeploy Architects between projects.

TOGAF, as the leading open standards framework, is leading the pack and any uncertified Architect who is unable to prove his/her competency is going to find themselves at a disadvantage in the future.

orbus
software