

Keynote Address: Architecture Practitioners Conference,  
Washington, DC 2003

## **Welcome and acknowledgements**

### **Pioneers**

This is an exciting time for Enterprise Architects. You are at the forefront of an emerging profession. You are the pioneers – the people who will mark out the territory and the trails for others to follow. You have a tremendous opportunity, even a responsibility to set the standards for the future.

### **We are in the era of the Information Revolution**

As Peter Drucker wrote in October 1999, “The truly revolutionary impact of the Information Revolution is just beginning to be felt.”

Just as the Industrial Revolution in its first half-century only mechanized the production of goods that had been in existence all along, so the Information Revolution, since the introduction of the first computers in the 1940’s has only transformed processes that were here all along.

So far the real impact of the Information Revolution has not been in the form of information at all.

The organization of enterprises into end-to-end processes and divided into departments and divisions is a consequence of the Industrial Revolution. The role of Information Technology has been to improve existing processes, with a tremendous saving in time and cost and a similarly tremendous improvement in consistency and quality. But the underlying processes have not really changed at all.

As Peter Drucker wrote just 4 years ago, “Almost none of the effects of information envisaged 40 years ago have actually happened. For instance, there has been practically no change in the way major decisions are made in business or government.”

I believe we are now seeing this change and change dramatically. Today, we are at the stage in the Information Revolution where the fabric of the traditional organization structure is being torn down in enterprise after enterprise and real change is starting to be made. What were once regarded as necessary boundaries between the different stages in operational processes designed to achieve the benefits of specialization in the factory and the office are now derided as stove-pipes and silos.

Until recently the concept of an enterprise IT architecture was a vision shared by a few. And anyone who would have tried to introduce such an idea would have encountered the absolute barrier of the departmental barons.

What has created the opportunity today is the breaking down of the stovepipes or silos. Few organizations have not recognized the need to integrate their organizations to be more competitive, more responsive or just more efficient. We have all experienced cross-functional teams, tiger teams, task forces, matrix organizations or other ways of bringing people together. Bringing people together from different departments across an enterprise has long been a major challenge.

The stove piped organization has been slowly, deliberately and carefully built and enhanced over centuries. Functional specialists have developed independently and have their own language, their own acronyms and their own culture. Different business lines within the same organization have developed their own identities to which many of their people are fiercely loyal. Few have anything in common with their peers in other parts of the same

organization: in fact it is more likely they can tell you why those other areas of their enterprise are less competent, less efficient or just less valuable than themselves.

The failure of mergers between organizations is well documented. The struggle between two cultures coming together has been a constant source of frustration to those who thought that 1 plus 1 would always equal 2 and that synergies are always positive. Yet the cost of integrating the different cultures within an enterprise is largely undocumented and unnoticed.

When Jack Welch coined the phrase, the Boundaryless Organization, he believed and has been proven correct that GE would be more effective if the cultural or organizational barriers that separated people could be made more permeable, to enable business, rather than get in its way. Not only did he focus on cross-functional boundaries (essentially the horizontal barriers in an enterprise) but also the vertical and geographic boundaries.

GE was not the only enterprise to tackle the silos or stovepipes. Today, many organizations have achieved a degree of boundarylessness between their people, only to find that the stovepipes are even deeper in the IT systems that were built with the singular purpose in mind that they would only support the needs of a single department, and did not foresee a situation where they would need to share and integrate information with the systems of other departments or divisions.

In the next era of the Information Age we need to be able to access information from multiple parts of the enterprise, integrate it to suit the specific needs of the moment and rather than deliver that information when and where needed – to enable access to it, in a secure, reliable and timely manner.

As Jack Welch foresaw the need for the Boundaryless Organization, so we are experiencing the need for information to flow in a boundaryless way in support of that vision – what we need if the Information Age is to realize its potential is Boundaryless Information flow.

Progress towards this vision – vision of Boundaryless Information Flow is going on all around us.

This is something Peter Drucker could not have envisaged as little as 4 years ago. It is only now that the real impact of the Information Revolution can be in the form of information.

Enterprise Architects and Boundaryless Information Flow go hand in hand. The Enterprise Architect is going to be critical to realizing Boundaryless Information Flow; and Boundaryless Information Flow will be the key driver in the emergence of Enterprise Architecture as a recognized profession.

### **The role of the Enterprise Architect is more than a specialization**

Specialists emerge whenever there is a return on the investment of doing so:

- When there are distinct cost benefits resulting from the greater effectiveness of specialization – the Industrial Revolution approach - which is why we created specialist departments in organizations

Professions emerge whenever four additional conditions exist:

- A high standard of expertise is needed, e.g. doctors, lawyers, accountants
- Broadly recognized standards and best practice are adopted
- The skills are readily transferable between enterprises
- A place where practitioners can come together

## **Enterprise Architecture is not a profession, yet!**

So what is preventing this and where are we up to in the story so far?

### ***Expertise***

The Information Revolution has created the need for the Enterprise Architect and it is undoubted that it takes a special type of person to be an Enterprise Architect.

Like any other profession it will be necessary to combine academic achievement with experience to achieve certification. Then to retain professional status it is likely that Enterprise Architects will be required to keep their skills and knowledge up-to-date with a program of continued professional development throughout the rest of their career.

But possessing a **high standard** of expertise alone, while necessary is insufficient. The successful Enterprise Architect also needs to have excellent listening skills combined with presentation and communication skills that will inspire and energize those they work with.

The opportunities for achieving the expertise required are limited. Many of the available training courses are specific to a single vendor or to a single enterprise and have been developed to suit very specific needs or approaches and do not provide the breadth Enterprise Architects need. This is indeed a challenge to the emergence of the Enterprise Architect as a profession.

This is compounded by the risk that young people with the potential to become Enterprise Architects can be taken down a path leading only to expertise in a specific technology. The use of the term “architect” is being applied to tasks that a few years ago would have been described as lead software engineers. Confusion over what an architect is will harm the growth of the Enterprise

Architect as a profession and lead people with talent in this area into different roles.

We need to see more support for and growth in independent and creditable training programs – such as those we have certified as TOGAF Certified Trainers. Training courses need to focus on the skills required of an Enterprise Architect over and above the specific needs of pushing a single marketecture or technology.

In addition we need to see employers provide experience for trainee enterprise architects in the practical implementation of industry standard architecture activities.

### ***Standards and Best Practice***

Every recognized profession has its own set of standards and best practice. Most grow up regionally, to begin with, although today there is a high degree of harmonization globally. What is different for Enterprise Architects is that we must start from a global perspective from the outset.

- Lawyers have the constitution, federal and state laws, case history and guidance notes issued by the professional body where they practice
- Accountants have federal and state laws, GAAP, accounting standards and statements of accounting practice issued by their professional body
- Doctors have the Hippocratic oath, guidance notes from their
- Dentists have weapons of mass fear

The standards and best practice of most professions are founded on a well-established code of ethics and on a set of principles that survive the test of time.

For Enterprise Architects the standards and best practice can be found in architecture development methods that support

architecture frameworks. A good example of an architecture development method is TOGAF (The Open Group Architecture Framework). It provides a standard process for developing architectures and can be used on its own as a part of TOGAF or to guide Enterprise Architects through the process of creating an architecture using some of the other frameworks such as Zachmann, DoDAF or TEAF.

TOGAF is seeing a considerable rate of adoption by Enterprise Architects and is supported by tools vendors, some of whom are certified conformant with TOGAF, such as POPKIN.

### ***Transferable skills***

All recognized professions enable transferable skills via a certification program. Such programs establish both academic knowledge and practical ability.

At this time there is a broad spectrum of certification programs that an Enterprise Architect could work towards. Some of these are based on independent training programs and range from a certificate to say that an individual has completed a training course to a certificate that is the result of passing a test. These often suffer from being motivated by the need to sell training, rather than to ensure quality. They also suffer in a fragmented market, where employers cannot see the specific value in any of them and therefore do not widely seek them out or recognize them when hiring.

Some IT architect certification programs are used by suppliers of enterprise architecture services as a means of ensuring their staff are able to deliver a certain level of skill and quality. These, quite naturally are biased towards the services on offer by that service organization which not only tends to lock customers into that supplier's solutions but also restricts the mobility of their staff.

In the case of many recognized professions, while the skills are transferable within a geographic domain, additional requirements exist in order to practice in other regions of the world.

It is critical that we enable transferable skills among Enterprise Architects and that we start from a global perspective. The benefits to Enterprise Architects should be obvious: a larger employment market, increased remuneration and greater recognition and respect amongst your contemporaries. The benefits to organizations should be equally obvious: to increase the supply of skilled resources.

### ***A place where practitioners come together***

In every situation where professions emerge, a place for them to come together emerges. This enables an acceleration in the development and up-take of standards and best practice and for the support of its members.

At first there tend to be multiple professional bodies. Later these tend to specialize, merge or in other ways come together.

Professional bodies often provide a number of services for their members:

They are a place where some of their number focus on developing the standards and best practice, although the majority prefer to simply understand how to implement them.

This event is clearly focused on the Architecture Practitioners who want to understand how to implement the standards and best practice that exist in this fledgling profession.

Yes. Our members do come together to work on TOGAF and improve or enhance the standards or the certification programs but for the next couple of days we are squarely focused on providing a



place for practitioners to come together, to learn about best practice and standards and to learn by networking with each other.

### **Summary**

So, I believe that we are on the eve of an opportunity for enterprise architecture to emerge as a profession.

If we are able to:

- Ensure high standard of expertise – based on both academic knowledge and practical experience;
- Adopt broadly recognized standards and best practice;
- Enable skills to be readily transferable between enterprises; and
- Provide a place where practitioners can come together

Then we will see the emergence of the Enterprise Architect as a recognized professional.

This event is the first of its kind and we will learn from this and build on it over the coming months and years.

This is an exciting time for Enterprise Architects. You are at the forefront of an emerging profession. You are the pioneers – the people who will mark out the territory and the trails for others to follow. You have a tremendous opportunity, even a responsibility to set the standards for the future.

I hope you enjoy the event and look forward to talking with you less formally later.

Thank you.