

# IT Architecture - Fact Sheet

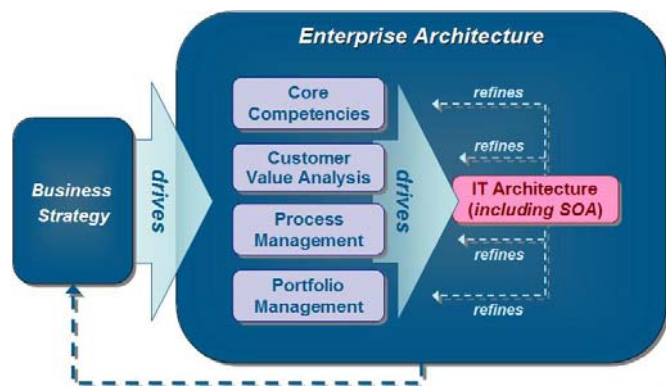
## Overview

*"An effective enterprise architecture is critical to business survival and success and is the indispensable means to achieving competitive advantage through IT in the emerging Information Age economy." The Open Group*

Today's CEOs know that the effective management and exploitation of information through IT is a key factor to business success, and an indispensable means to achieving competitive advantage. An Enterprise architecture addresses this need, by providing a strategic context for the evolution of the IT system in response to the constantly changing needs of the business environment.

<http://www.opengroup.org/togaf/>

A Good Enterprise Architecture enables you to achieve the right balance between IT efficiency and business innovation. It allows individual business units to innovate safely in their pursuit of competitive advantage. At the same time, it ensures the needs of the organization for an integrated IT strategy are met, permitting the closest possible synergy across the extended enterprise. The advantages that result from a good enterprise architecture bring important business benefits, which are clearly visible in the net profit or loss of a company or organization:



- **A more efficient IT operation:**
  - Lower software development, support, and maintenance costs
  - Increased portability of applications
  - Improved interoperability and easier system and network management
  - Improved ability to address critical enterprise-wide issues like security
  - Easier upgrade and exchange of system components
- **Better return on existing investment, reduced risk for future investment:**
  - Reduced complexity in IT infrastructure
  - Maximum return on investment in existing IT infrastructure
  - The flexibility to make, buy, or out-source IT solutions
  - Reduced risk overall in new investment, and the costs of IT ownership
- **Faster, simpler, and cheaper procurement:**
  - Buying decisions are simpler, because the information governing procurement is readily available in a coherent plan.
  - The procurement process is faster - maximizing procurement speed and flexibility without sacrificing architectural coherence.

- The ability to procure heterogeneous, multi-vendor open systems.

## The Emerging Role of Enterprise Architect

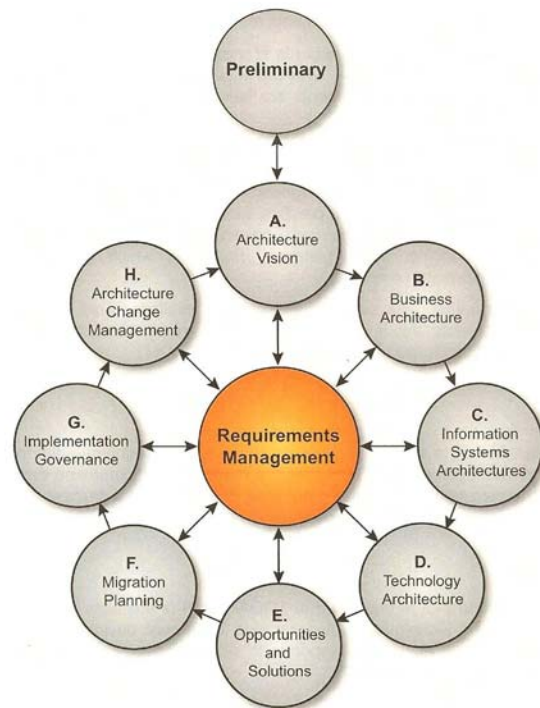
Business is growing ever more complex and information technologies change rapidly. Even more complex are the layers of technology that are used by different players across the industry. Service Oriented Architecture (SOA) as a solution can be used within a any organization to not only effectively manage business and IT complexity but also to gain a keen insight into handling of increasing demand for services at lower costs.

### Why do we need Architects?

Enterprise Architects are used to dealing with complexity. This usually takes the form multiple users, multiple requirements, multiple formats, multiple interfaces, multiple platforms, multiple applications, multiple standards, and so on. The way through this jungle is to establish the constant or stable parts of the systems environment such as basic functions and fundamental data and build on them using this foundation to support the variability and volatility of the healthcare domain.

The US Government CIO Office, US Office of Management and Budget and Government of Canada CIO Office have already informally endorsed TOGAF 9 training for Enterprise Architecture compliant government IT projects. This fact alone will significantly drive open standards across the private and public sectors.

The TOGAF Architecture Development Method (ADM) shows us how to establish an Architecture Vision first as part of IT Architecture Governance. Business Architecture and process scenarios drives Architecture traceability to business drivers. Finally Requirements Management and endless change is at the center of all Architecture.



## Market Size and Maturity

*"With reference to the Open Group TOGAF 9 IBM has been very enthusiastic about any initiatives that increase the viability of open platforms. This approach to standards for management technologies will help drive innovation to integrate data and services throughout the enterprise."*

- Dr. Daniel Frye, Director, IBM Linux Technology Center

**SAN FRANCISCO, Aug. 7, 2008** –The Open Group, a vendor- and technology-neutral consortium focused on open standards and global interoperability within and between enterprises, today announced several milestones related to enterprise architecture initiatives within the organization and membership overall. In the quarter ending June 30 alone, 21 new members joined the organization. New members, representing a diverse set of companies across numerous industries, include Deloitte Consulting LLC, Discover Financial, Principal Financial Group, Rio Tinto, Symantec and Kingdee, the organization's first Gold Member Company from China.

The Open Group's initiatives for advancing professional excellence within the field of enterprise architecture, in particular, continue to draw interest from both practitioners as well as companies seeking architectural frameworks that will bring together the business and technical needs of their organizations. For example, The Open Group's quarterly Architecture Practitioner's Conference (APC) series has become a standard for conferences within the profession with more than 6,000 individuals attending since their inception five years ago. This fall, The Open Group will host its 20th APC in Munich, October 20-22, and in 2009 the organization will host its first conference in China.

Additional enterprise architecture-related milestones reached during the first half of this year include:

- Widespread global adoption of TOGAF™ as the *de facto* standard method for enterprise architecture, including certified practitioners in 67 countries
- More than 7,500 individuals worldwide who are TOGAF™ 8 certified
- Certification of more than 2,600 people under The Open Group's IT Architect Certification Program (ITAC)
- Expanded membership of the Association of Open Group Enterprise Architects (AOGEA) to more than 8,000 members in less than two years, including chapters in the U.S., Canada, India and Australia

## Scope of Market

"The Clinger-Cohen Act supplements the information resources management policies by establishing a comprehensive approach for executive agencies to improve the acquisition and management of their information resources, by:

- focusing enterprise architecture to support their strategic missions;
- implementing a capital planning and investment control process that links to budget formulation and execution of systems and architecture; and
- rethinking and restructuring the way they do their work before investing in information systems.

By spring 2011 all US DOD IT funding must align and be approved for DODAF compliance, that is Department of Defense Architecture Framework (DODAF) for all military strategic, tactical and operational IT spending." [http://en.wikipedia.org/wiki/Clinger%E2%80%93Cohen\\_Act](http://en.wikipedia.org/wiki/Clinger%E2%80%93Cohen_Act)

TOGAF is becoming the prevalent standard to produce models for DODAF, FEAF, and HIT and other areas. This study reveals major demand coming for TOGAF Consulting and training from US Federal accounts in addition to the Healthcare field, Energy, Manufacturing and retail. Government accounts currently appear to be leading the field. The private sector is cautious to reveal plans due to losing competitive advantage.

The US Government CIO Office, US Office of Management and Budget and the Government of Canada CIO Office have endorsed TOGAF 9 training for Enterprise Architecture compliant government IT projects. This fact alone will significantly drive open standard through compliance and regulation through government IT funding projects for Enterprise Architecture. The following Case Studies already boast the public sector is in advance on this market.

### Selected Case Studies

**Westpac** is a major Australian bank who have used TOGAF in collaboration with IBM, in much the same way as the UK Department of Social Security; i.e., as the basis of managing the technology components of a major outsourcing relationship. The Westpac Case Study gives an overview of the approach used and reactions.

<http://www.opengroup.org/architecture/togaf8-doc/arch/p4/cases/westpac/westpac.pdf>

**Dairy Farm Group ( Hong Kong )** - The Dairy Farm Group Case Study<sup>1</sup> illustrates extensive use of TOGAF as the basis of an enterprise-wide IT architecture to integrate many disparate business units. The Dairy Farm Group (DFG) is a holding company in the Retail sector. It has a very strong presence in the Asia/Pacific region, and is the 71st largest retailing company worldwide.

The DFG Technical Program Architecture Group (TAPG) was chartered to develop a Technical Architecture for DFG, and chose TOGAF and its supporting methodology as the basis. Using TOGAF, the TAPG was able, in a very short period of time (from July through October 1998) to develop a world-class technical architecture.

It was particularly helpful to be able to point key suppliers to a published version of TOGAF, so that they could see an explanation of the methodology and refer to the TOGAF Standards Information Base (SIB). [www.opengroup.org/public/member/q498/DFG/dfg\\_frame.htm](http://www.opengroup.org/public/member/q498/DFG/dfg_frame.htm)

**Department of Social Security (UK)** - The DSS Case Study illustrates the use of TOGAF, both as the basis of a new architecture framework, and as a key tool in managing the outsourcing of service delivery, in that vendors and integrators were required to use TOGAF as the basis for their tenders, and to use it subsequently in the ongoing management of the IT architecture.

The UK Department of Social Security (DSS) is responsible for the development, maintenance, and delivery of the UK's social security program and of the UK Government's policy for child support. The DSS currently employs around 90,000 staff and utilizes the largest civilian computer operation in Europe to provide services to its executive agencies, other government bodies, and various Independent Statutory Bodies. One of those executive agencies, the Information Technology Services Agency (ITSA), is responsible for providing the necessary IT systems and services, either internally or through contracts with the private sector.

Social Security spending is approaching £100 billion a year (1999), making it the biggest single spending department in government. At any given time, 70% of the population are in contact with the DSS. In 1998 the Department:

- Dealt with 15 million benefit claims, and 33 million changes of circumstances
- Made nearly a billion payments (a great deal of which were handled electronically)
- Handled upwards of 160 million telephone enquires

<http://www.opengroup.org/architecture/togaf8-doc/arch/chap35.html>

**Litton PRC (US)** chose the TOGAF Architecture Development Method (ADM) as a basis for its revamped internal Architecture Design Process. The Litton PRC Case Study<sup>2</sup> reviews the use of TOGAF within Litton PRC, and explains why TOGAF was chosen.

<http://www.opengroup.org/architecture/togaf8-doc/arch/p4/cases/prc2/wilson.pdf>

**JEDMICS (US Armed Services and the Defense Logistics Agency)** - The Joint Engineering Data Management Information and Control System (JEDMICS) Case Study illustrates the early stages of the ADM in use on a specific project.

The JEDMICS, formerly known as EDMICS before the "joint" services status was added, is designed to provide a modern means of storing and retrieving engineering drawings and data in electronic repositories through the use of various optical, digital and magnetic mass storage

devices, digitizing scanners, graphics hard copy devices, graphics display workstations, and communications devices. JEDMICS addresses the needs of the primary and secondary engineering repositories for the US Armed Services and the Defense Logistics Agency, including activities such as Navy Shipyards, Naval Aviation Depots, and Army and Air Force depots.

A key element of JEDMICS is the conversion of repositories for engineering data - which include both drawings and documents - into digital format and storing the data on optical disk to support changes in depot maintenance processes. These repositories will store 190 million engineering drawings and 500,000 technical publications. This puts tremendous emphasis on platform and software interchange and interoperability.

<http://www.opengroup.org/architecture/togaf8-doc/arch/chap35.html>

**The UK Ministry of Defence (MoD)** Case Study shows how the ADM can be used to develop an organization-specific architecture framework, allowing independent operating divisions to develop their own architectures while ensuring that they share a common core operating environment.

A standards-based architecture was derived from the DCISF and written into the project procurement specification. This proved to be effective in ensuring that the future system would be compliant with the DCISF.

<http://www.opengroup.org/architecture/togaf8-doc/arch/chap35.html>

**The UK Police IT Organization (PITO)** used TOGAF as the basis for the Technical Architecture for its National Strategy for Police Information Systems (NSPIS). The NSPIS Case Study includes a comprehensive approach to architecture views, and a methodology for ensuring interoperability between the building blocks of the final architecture.

The UK has some 43 police forces. Each one has a different way of doing basically the same job and the authority to purchase what it likes, when it likes, and from who it likes. It is not surprising therefore that there is a whole variety of IT solutions to meet the business need. In addition there are national systems and networks that connect to the local force systems. The most notable is the Police National Computer connected over a facilities managed Police National Network.

<http://www.opengroup.org/architecture/togaf8-doc/arch/chap35.html>

**QA Consulting** are a UK consultancy and training company whose mission is to improve IT effectiveness within large organizations. The company's focus is on enhancing the skills of people - optimizing human capital investment, and providing IT expertise that complements in-house skills. The company is the UK's No.1 IT Trainer, with 400+ Courses, both Instructor-lead and Internet-based, covering both technical and business skills. The QA Case Study explains the company's approach to using TOGAF, and gives an example of a recent client engagement in the Travel industry using TOGAF.