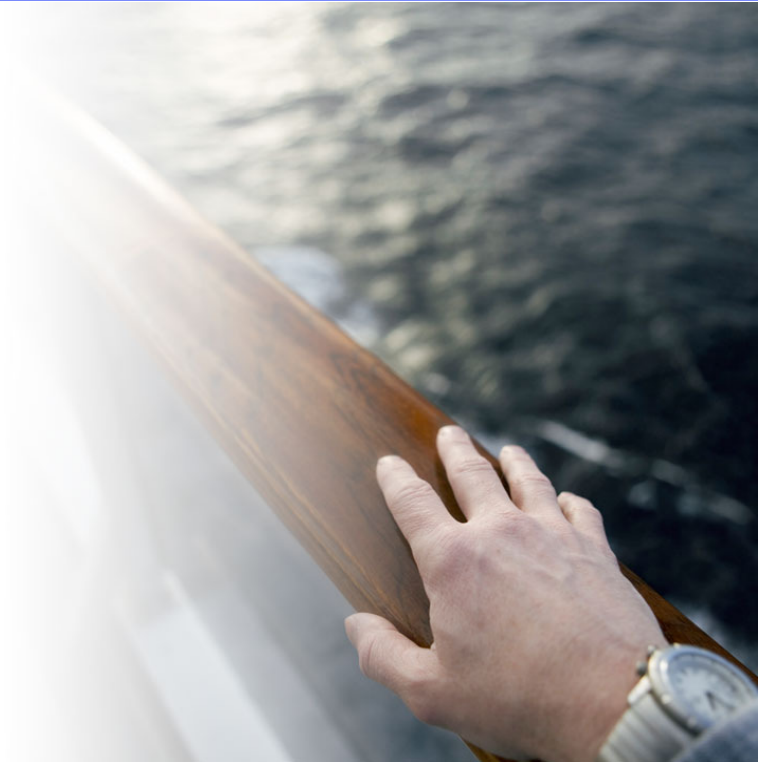IBM

Global Business Services

Open Group Conference, Toronto
Business Analysis Track   July 2009
Exploring collaboration among Business Analysts and IT Architects to meet Business Needs

Leo Marland, IT Architect
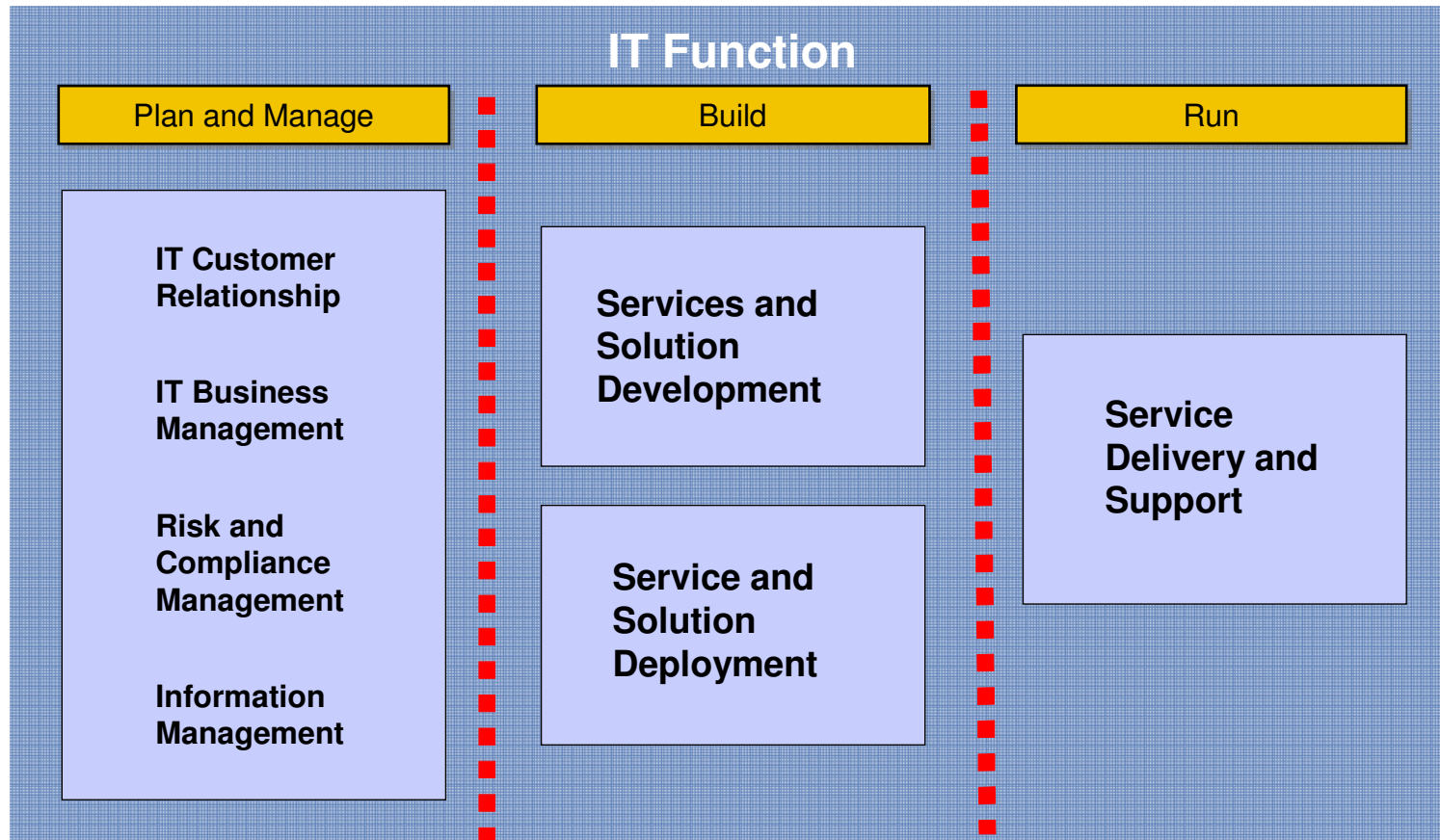IBM Canada
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Abstract

- IT Architects and Business Analysts need to collaborate to meet the enterprise's business needs.

- The collaboration within the Enterprise Architecture is primarily around the Business Modeling artifacts and their relation to the Business Strategy and Goals.

- For Solution Delivery, Requirements are the central artifact.   The Business Analyst must have the skill and insight to understand and express these requirements.   The Solution Architect is concerned with the Viability of the Solution.

- The development of strong professional models for IT professionals is essential.   The most valuable individuals will have experience and an appreciation of the other disciplines.

When considering the collaboration between IT Architects and Business Analysts, there are four roles to consider.

- Four roles commonly identified that are relevant for this discussion:
  - ▸ Business Analysts
  - ▸ Business Architects
  - ▸ Enterprise Architects
  - ▸ Solution Architects

- The definition of this role varies by organization culture and solution type.
  - ▸ Who is seen as the owner of the Solution, complementing the PM?
  - ▸ Is Business Architecture viewed as a specialty within Enterprise Architecture or does it have a broader brief?
  - ▸ Is the Architect title used to denote seniority and/or accountability?

One approach is to consider where these roles are focused within the IT Function.

IT Function

Plan and Manage	Build	Run
IT Customer Relationship **IT Business Management** **Risk and Compliance Management** **Information Management**	**Services and Solution Development** **Service and Solution Deployment**	**Service Delivery and Support**

We recommend a distinction between the Enterprise Architect and the Solution Architect for a Solution Development project.

- An **Enterprise Architecture** is much like a 'city plan', in that it ensures that each system is designed and built according to corporate standards and specifications ('building codes'): principles, policies and providing a framework for effective development. EA ensures that the development of the city will proceed in an orderly fashion and the diverse needs of each individual will be met while optimizing the limited resources of the city.

- **Solution Architecture** is concerned with the 'single-building design', ensuring that the building of a particular system will enable a business solution.

- For both Buildings and IT Systems:
  - ▸ The planning of effective common infrastructure is key.
  - ▸ There are different skills and disciplines required for:
    - • Planning: vision, understanding of broad strategic objectives.
    - • Design: flair, balance between excellence, feasibility and affordability.
    - • Engineering: the detailed design and construction of a system that meets the expected structural tolerances.

An Enterprise Architecture provides the vital linkages between "strategy" and "implementation", by guiding and coordinating solution delivery.

Strategy

Business Strategy

Information Technology Strategy

Enterprise-wide focus

Planning

Guides architecture

Constrains strategy

Enterprise Architecture

Business Architecture
- **Processes**
- **Information**
- **People**
- **Locations**

IT Architecture
- **Application**
- **Data**
- **Technology**

Enterprise Architecture
the city plan +
the building code

Guides & constrains solutions

Evolves architecture

Project focus

Solution Delivery

Solution Architecture

Solution | on | on | on | on | on

Solution Architecture
the infrastructure and
single-building design

Execution

Development & Operating Environments and IT Infrastructure

Guides and Defines

Requirements are central to all our work: Architecture, Business Analysis and Project Management.

TOGAF puts Requirements Management squarely at the centre of its Architecture Development Method
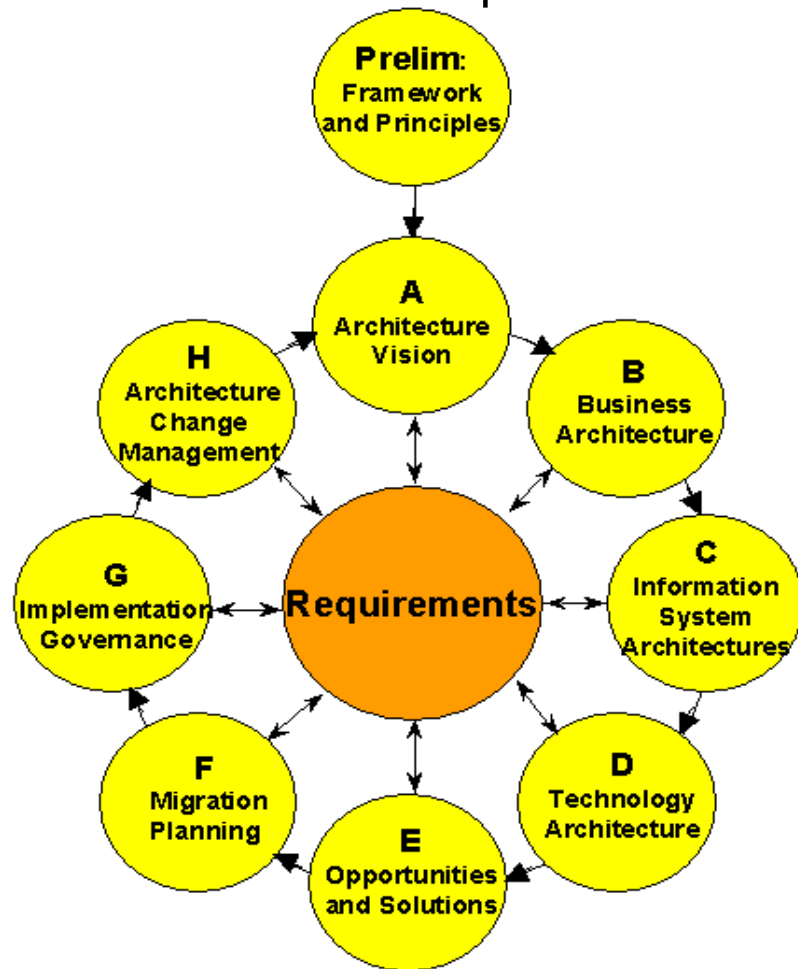
- If you don't do the same, your project will probably fail

- "Putting at the Centre" means constant effort to understand and manage

- Requirements Management and Traceability are critical.
  ▸ The use of Tools is strongly recommended.

Why focus on Requirements?

- Multiple studies have confirmed that 4 of the top 10 reasons for project failure stem from issues or problems associated directly or indirectly to project "Requirements"

- How a Project is initially launched can be particularly critical
  - ‣ Business Case and Commitments
  - ‣ Specific Goals
  - ‣ Understanding of Business Model changes
  - ‣ Change management plans

Top Ten Causes of Failed Projects

1. Incomplete Requirements
2. Lack of User Involvement
3. Lack of Resources
4. Unrealistic Expectations
5. Lack of Executive Support
6. Changing Requirement and Specifications
7. Lack of Planning
8. Didn't need it anymore
9. Lack of IT Management
10. Technical Illiteracy

Source: Standish Group

Business Insight is critical in the planning of Solution Development initiatives.

- The Senior Business Analyst or Business Architect can play a critical role in the effectiveness of the IT Function.
  - ▸ Determining the appropriate approach: Custom Development or use of an Application Package
  - ▸ Fit/Gap of an Application Package to the Business Requirements

- Guiding the Business Stakeholders
  - ▸ Is this a well understood business domain?
  - ▸ For a major Business Transformation, is the impact on the business understood or will the program need to adapt as requirements are identified or discovered.
 - ▸ Prioritization and Triage of Requirements

- TOGAF captures this within the Business Architecture Phase.
  - ▸ The art is in the amount of elaboration in the Business Modeling: Business Process Models, Use Case Models.

Requirements Characteristics are important for Managing Requirements Quality in Business Transformation initiatives

"Requirements Characteristics" are aspects of requirements that try to identify/classify the things that make requirements definition a challenge. IEEE 830 outlines the ChaCharacteristics can be thought of as "*Meta-Data* for Requirements":

Business Requirement Types	Requirements Characteristics

Business Requirement Types

- Business Process Requirements
- User Requirements
- Business Rules
- Functional System Requirements
- Non-Functional System Requirements
- System Data Requirements
- User Interface Specification
- System Interface / System Integration requirements
- Service Requirements
- etc…
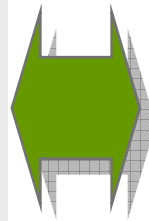
Requirements Characteristics

IEEE 830: Characteristics of a good SRS

- Correct
- Unambiguous
- Complete
- Consistent
- Ranked for importance and/or stability
- Verifiable
- Modifiable
- Traceable

SRS: Software Requirements Specification

The Solution Architect ensures that that a particular system is a viable way to enable the required business solution.

- The Architecture must address the Requirements for a Business Solution, enabled by IT, which comprise:
  - ▸ Functional Requirements
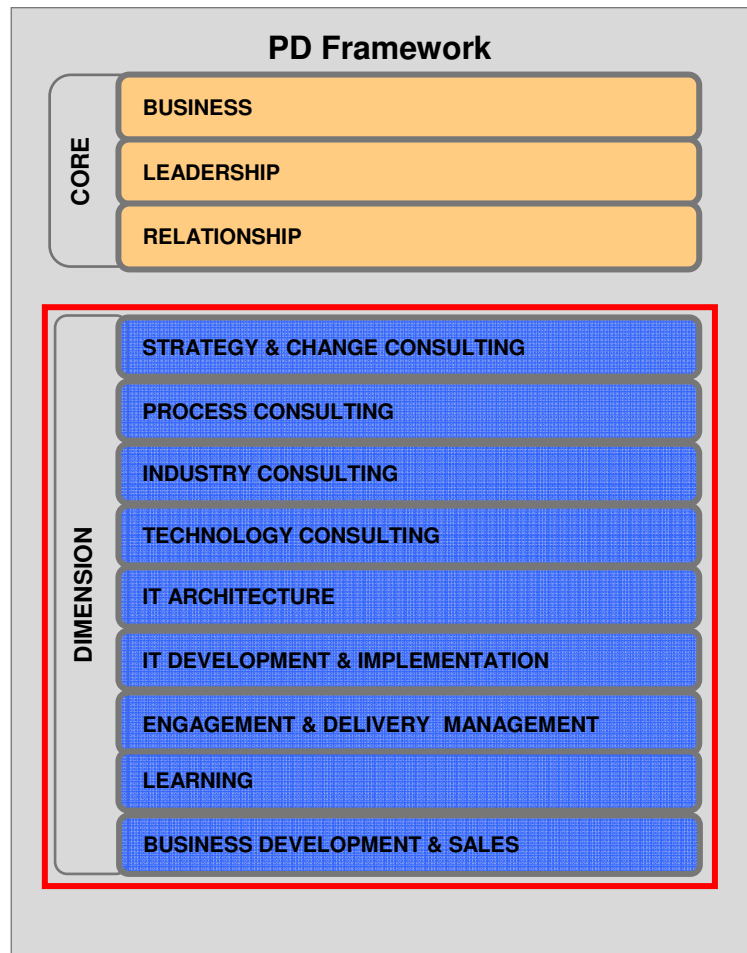 - ▸ Operational (Non-Functional) Requirements

- There are also constraints for the Solution Architect to consider. For example:
  - ▸ Cost and time
  - ▸ Integration required with existing systems
  - ▸ Use of software packages

- The Specification of Solution Architectures is trending towards increasing use of a standard modeling language (UML)..

- Solution Architects leverage Patterns, Reference Architectures and Frameworks
  - ▸ … and their own experience with prior Architectures.

Insightful collaboration requires real understanding of other roles.
As an example, for our client facing roles, IBM encourages both deep professional skills and the development of capabilities across multiple dimensions.

PD Framework

CORE
- BUSINESS
- LEADERSHIP
- RELATIONSHIP

DIMENSION
- STRATEGY & CHANGE CONSULTING
- PROCESS CONSULTING
- INDUSTRY CONSULTING
- TECHNOLOGY CONSULTING
- IT ARCHITECTURE
- IT DEVELOPMENT & IMPLEMENTATION
- ENGAGEMENT & DELIVERY MANAGEMENT
- LEARNING
- BUSINESS DEVELOPMENT & SALES

➢ The PD Framework is a comprehensive development framework designed to **facilitate professional growth** within any of the GBS career paths

➢ Developing capabilities across multiple dimensions in the PD Framework enables employees to build and be recognized for the **depth and breadth of capability** valued by the business and ultimately required to achieve an Executive role in any of the career paths