



THE *Open* GROUP  
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# Architecture Development with TOGAF

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# QA We are ....

A specialist business that improves IT effectiveness within large organisations. The focus is on enhancing the skills of people, optimising human capital investment and providing IT expertise that complements in-house skills.

# QA Our Capabilities

UK's no.1 IT Trainer  
400+ Courses

- Instructor-led
- Internet-based
- Published materials

Multi-discipline  
Technical skills  
Business skills



Architecture consulting  
Technical consulting  
IT strategy and architecture  
Enterprise infrastructure  
Application integration  
Service management

Human capital development consultancy  
Learning management systems

# QA Today ....

- The Client
- IT Strategy
- Why have an Architecture?
- What is Architecture?
- Developing and Applying an Architecture –  
The Architecture Programme
- Architectural Principles
- Architecture Definition Strategy
- Architecture Governance & Conformance

# QA The Client

- Major International Player in the Travel Industry
- Grown through acquisition
- Countering threats from internet travel booking agencies
- Multiple distribution channels
- Many technology suppliers and partners
- Wants to reduce cost, improve service and increase revenue

# QA Strategy Issues (1)

- Know Your Customer
  - The Implementation of Customer Relationship Management
  - Underpinned by Loyalty Schemes
- Attack the cost base and increase revenue
- Form Joint Ventures with
  - Technology suppliers
  - Financial Institutions
  - Competition
- Integrate the use of e-Commerce by using leading edge technology



# QA Strategy Issues (2)

- Multiple Distribution Channels
  - Internet
  - Mobile Phones
  - Digital TV
  - In flight, on board and in room services
  - Shops
  - Call centers
  - .....



# QA Business Issues and Architecture

- Application of technology continues to be challenging, driven by innovative business practices and the need to reduce cost
- Many overlapping initiatives, parallel programmes
- An IT Strategy is used for the alignment of business and IT and prioritising investment
- An Architecture is the blueprint for implementing the Strategy
- Architecture at 2 levels
  - Global Architecture for standards, frameworks, etc.
  - Loosely Coupled Architecture allowing the Business Units to do their own thing
- Senior Management must align behind a well defined IT Strategy and support the Architecture Programme



# QA IT Strategy

- IT strategy is explicitly linked to the future business direction. It is:
  - A Framework for Decision-making
  - A Process for alignment of Business & IT
  - A set of Strategic Options
  - A set of aligned Business & IT projects/initiatives
- An IT Strategy comprises:
  - Business & IT Principles
  - Strategic Applications
  - Strategic Options for each application
  - Decision Criteria
  - Investment & Migration Plan
  - Consolidated implementation plan
  - Business Case for IT initiatives
- The IT strategy defines what needs to be done and, through explicit linkage to the business, why this needs to happen and when.



# QA Architecture

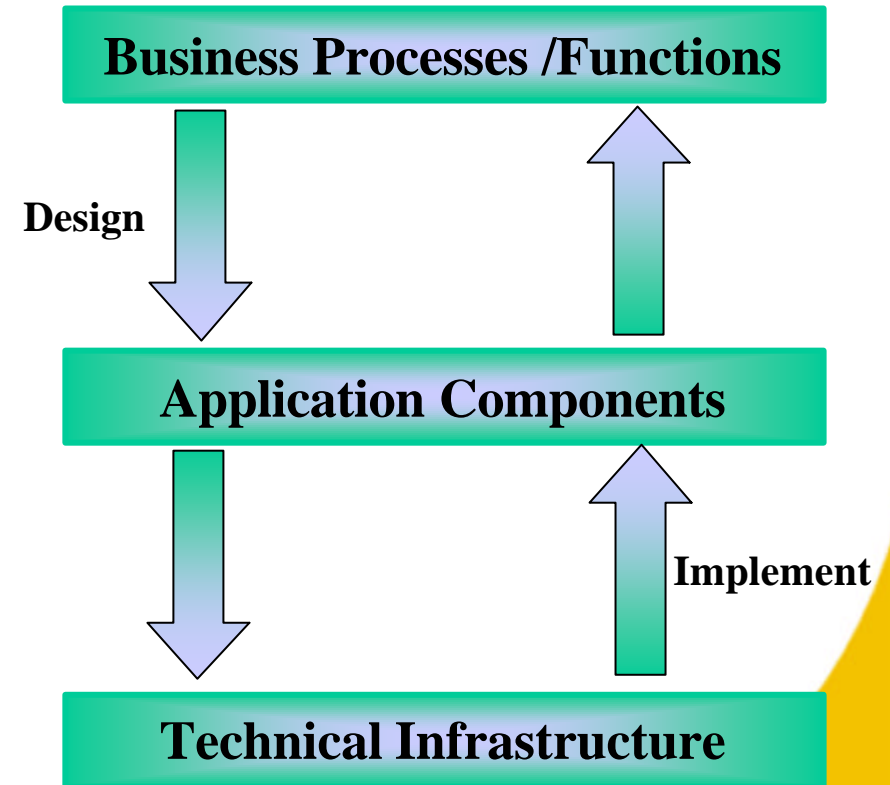
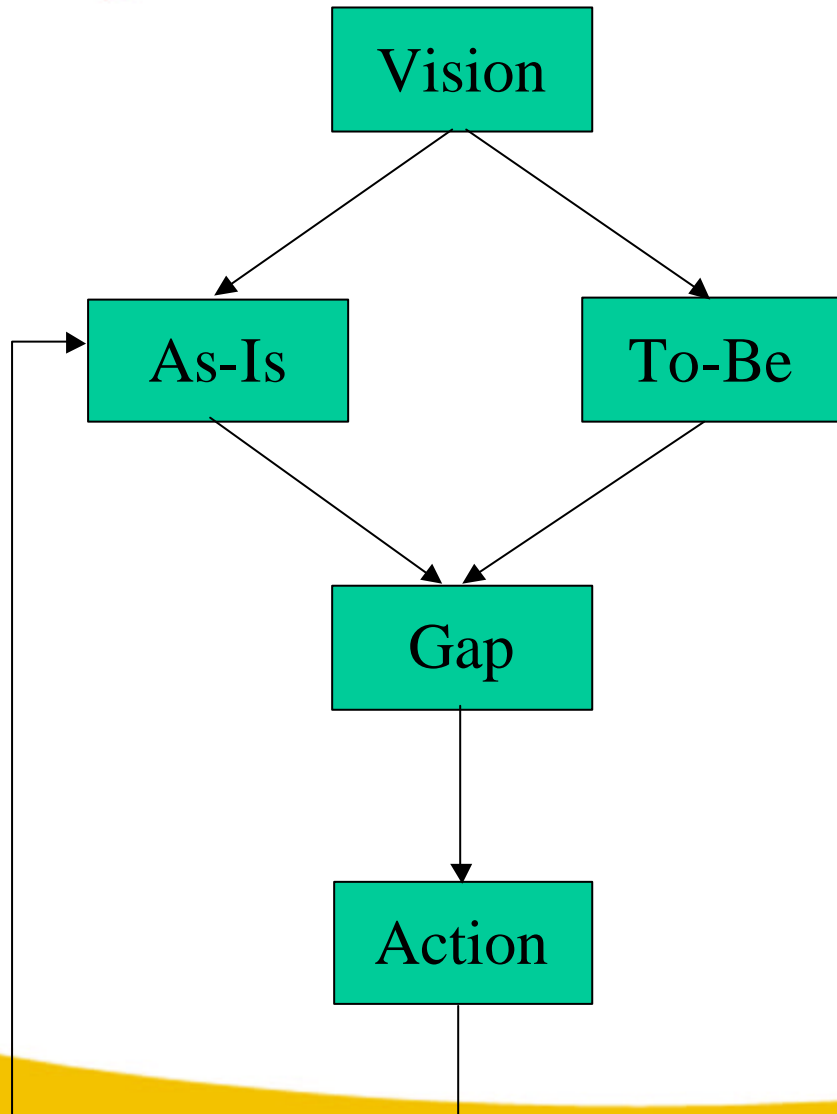
*Principles, mechanisms, patterns and structures that clearly define and communicate the structure of a system*

- Describes how a system is constructed from a number of interrelated parts, or components.
- An architecture is the technical foundation for an effective IT strategy, which in turn is the core of any successful modern business strategy.

# QA Benefits of an Architected Approach

- A consistent architecture provides flexibility, which can:
  - Improve speed to market and reduce costs by
    - containing change and limiting its effect on other systems
    - reducing the number of technology suppliers
    - improving the effectiveness of development, test, implementation and support staff
    - reducing the training burden
    - enabling integration of packaged solutions
    - Faster development of IT Solutions
  - Enable business innovation by
    - mix and match of business components to form new products
    - delivering products over new channels
    - availability of consistent data in near real time
    - automating or simplifying processes
    - enabling connectivity with partners, customers, and suppliers

# QA Developing an Architecture



# QA The Architecture Programme (1)

- Issues:
  - Control the cost and overheads
  - Economy of scale
  - Prevent re-inventing wheels, but promote (re-)use
  - Global exchange of information and experiences
- Proven approach:
  - Provide a central co-ordination function
  - To communicate with Business and IT
  - Defining standards, direction and frameworks
  - Participate in the Implementation Projects
  - Feed back the experiences and adjust the Architecture
  - Provide focussed expertise to implement solutions (C of E)



# QA The Architecture Programme (2)

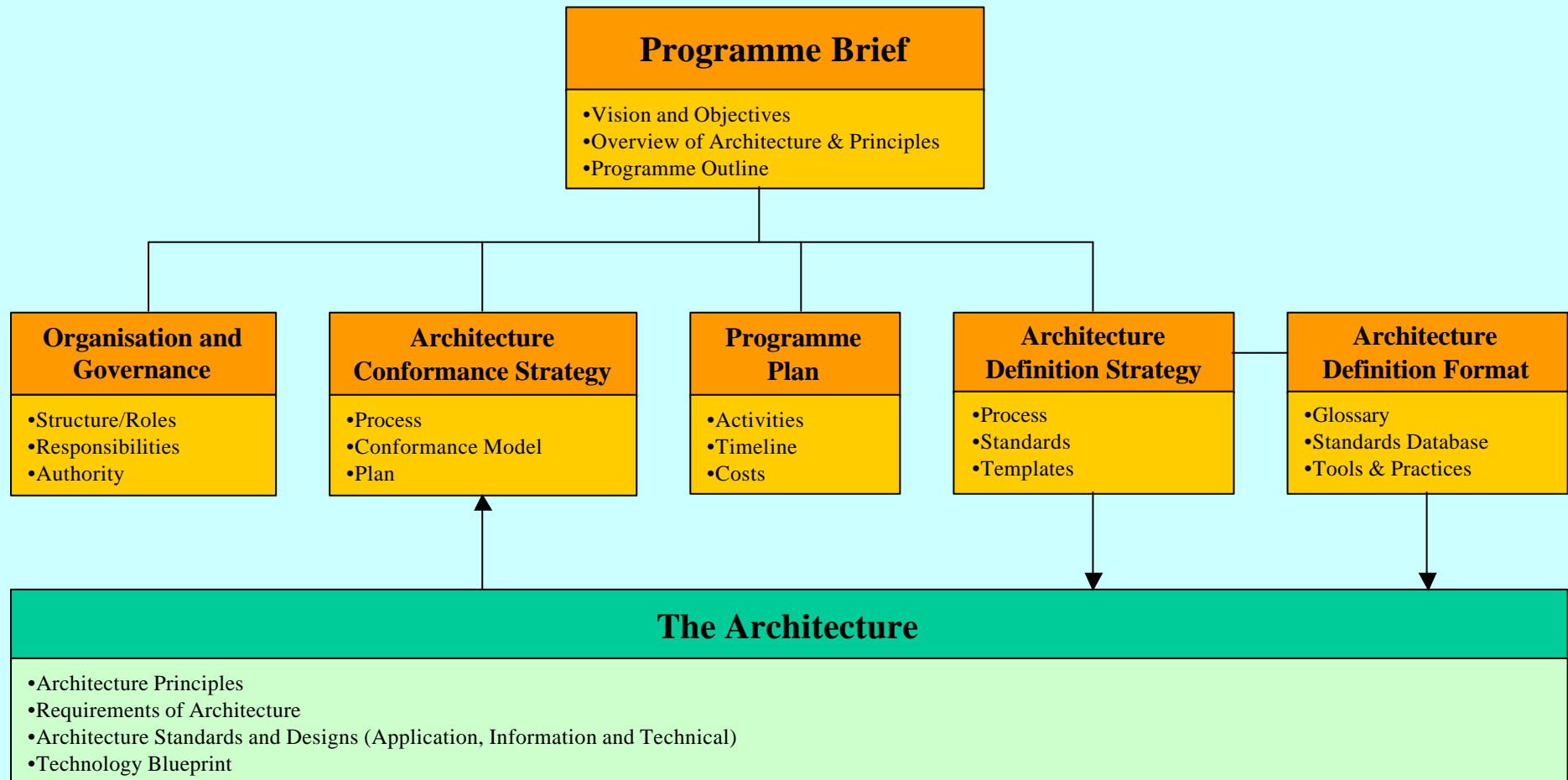
- Is an initiative at Group Level
- Is long term and ongoing, not a quick and dirty approach
- Is there to co-ordinate IT activities through Group
- Is there to provide consistency
- Is there to ensure architectural benefits are realised



# QA Architecture Programme Components

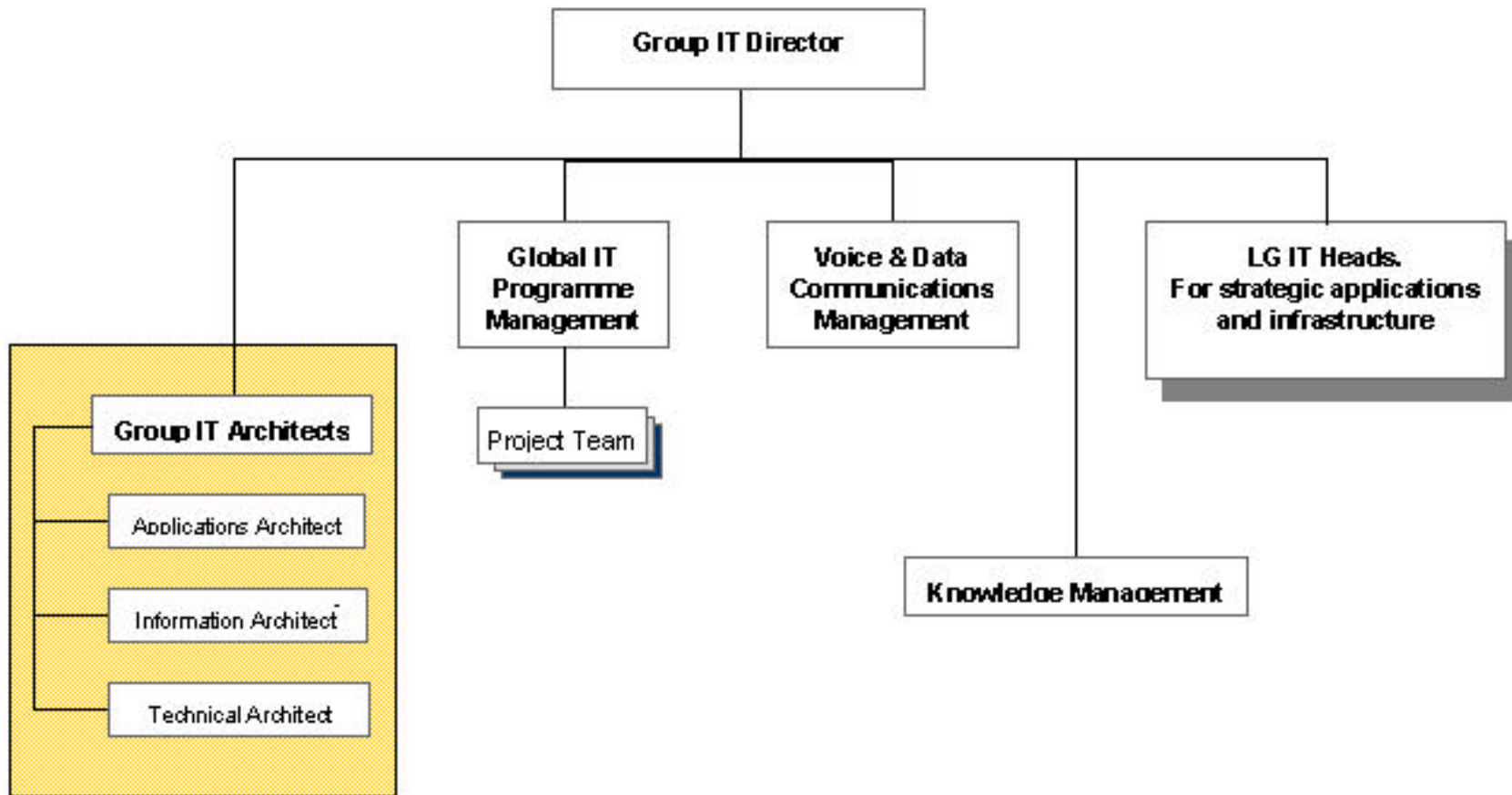
## Document Management Strategy

- Programme Control Book
- Change Control Process





# QA The Architecture Team



# QA Principles Definition

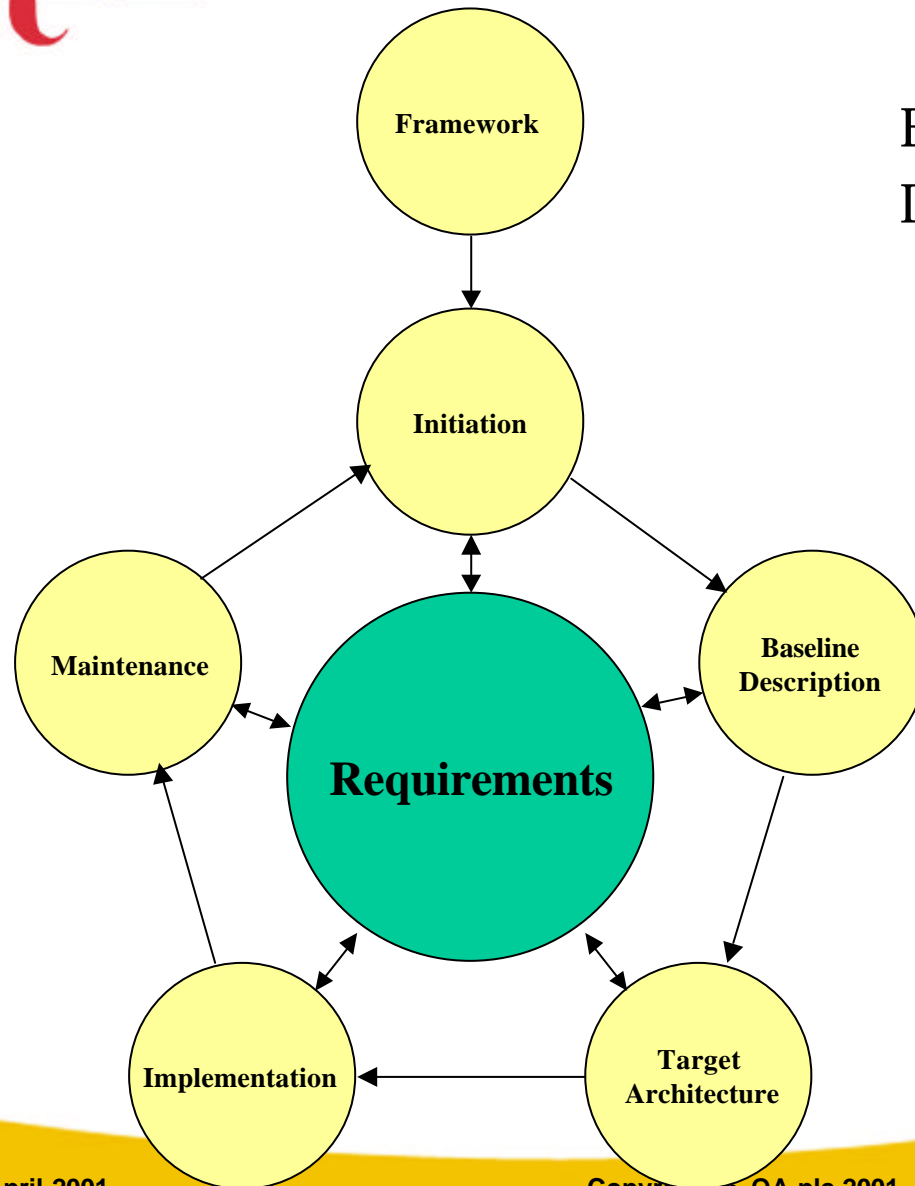
- Principles are rules and guidelines for planning, design, build, and operational control of systems
- Architecture Principles serve as actionable IT guidelines, providing a common basis for decisions across IT.

Architecture principles should:

- Articulate a company's values
- Guide product selection
- Guide implementation choices
- Become part of the IT culture
- Integrate with IT processes

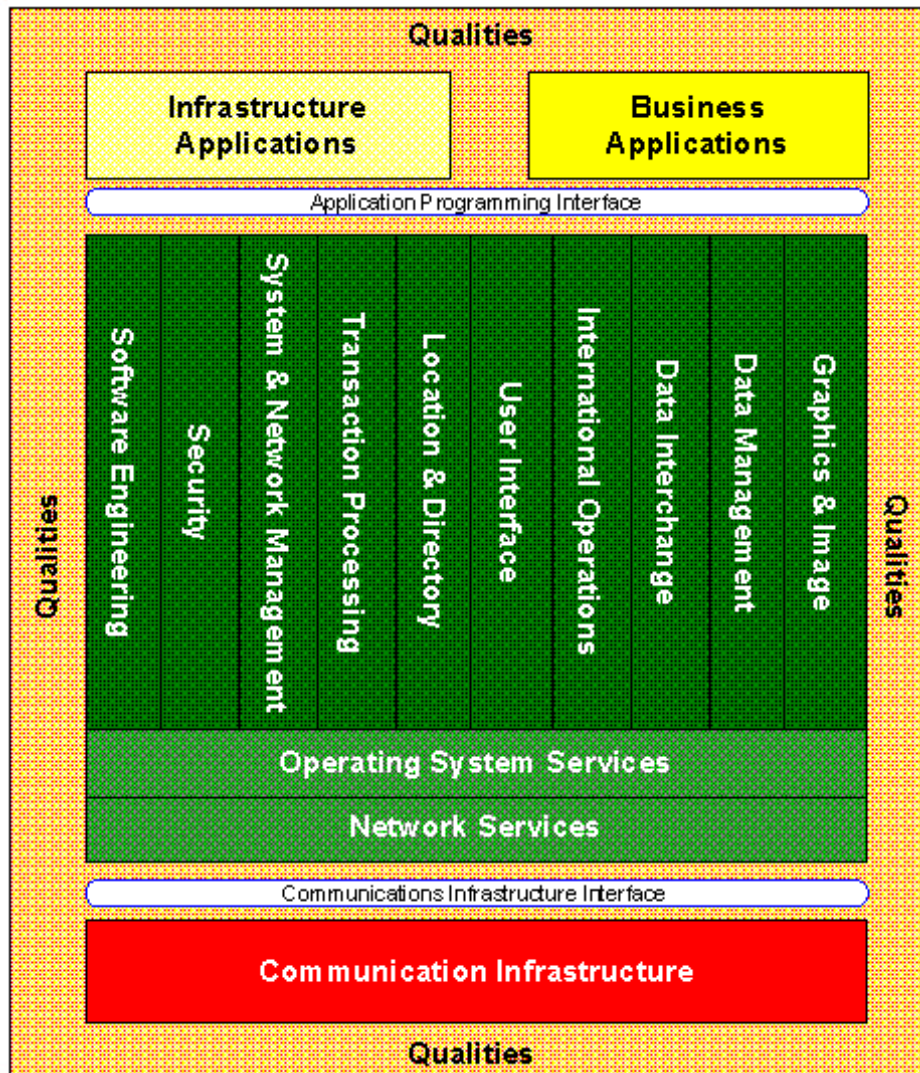
# QA Architecture Definition Strategy

Based on TOGAF Architecture Development Methodology



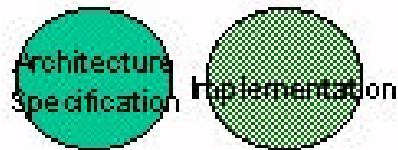
- Phased
- Iterative
- Phases have steps
- Validation against requirements at every step

# QA Technical Reference Model

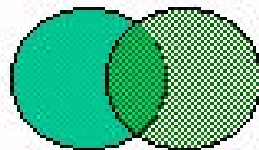


- Service Based
- Separates LOB apps from generic apps
  - Apps can be bespoke or COTS
- Qualities
  - Availability
  - Assurance
  - Usability
  - Adaptability

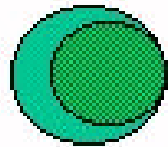
# QA Architecture Conformance



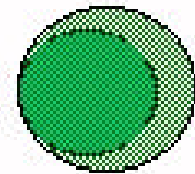
Irrelevant: The implementation has no features in common with the architecture specification (so the question of conformance does not arise).



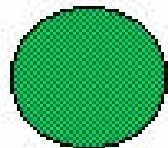
Consistent: The implementation has some features in common with the architecture specification, and those common features are implemented in accordance with the specification. However, some features in the architecture specification are not implemented, and the implementation has other features that are not covered by the specification.



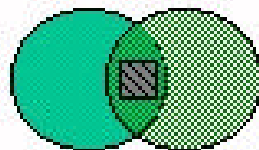
Compliant: Some features in the architecture specification are not implemented, but all features implemented are covered by the specification, and are in accordance with it.



Conformant - All the features in the architecture specification are implemented in accordance with the specification, but some more features are implemented that are not covered by specification.



Fully Conformant - There is full correspondence between architecture specification and implementation. All specified features are implemented in accordance with the specification, and there are no features implemented that are not covered by the specification.



Non conformant: Any of the above in which some features in the architecture specification are implemented not in accordance with the specification.

# QA The Architecture?

