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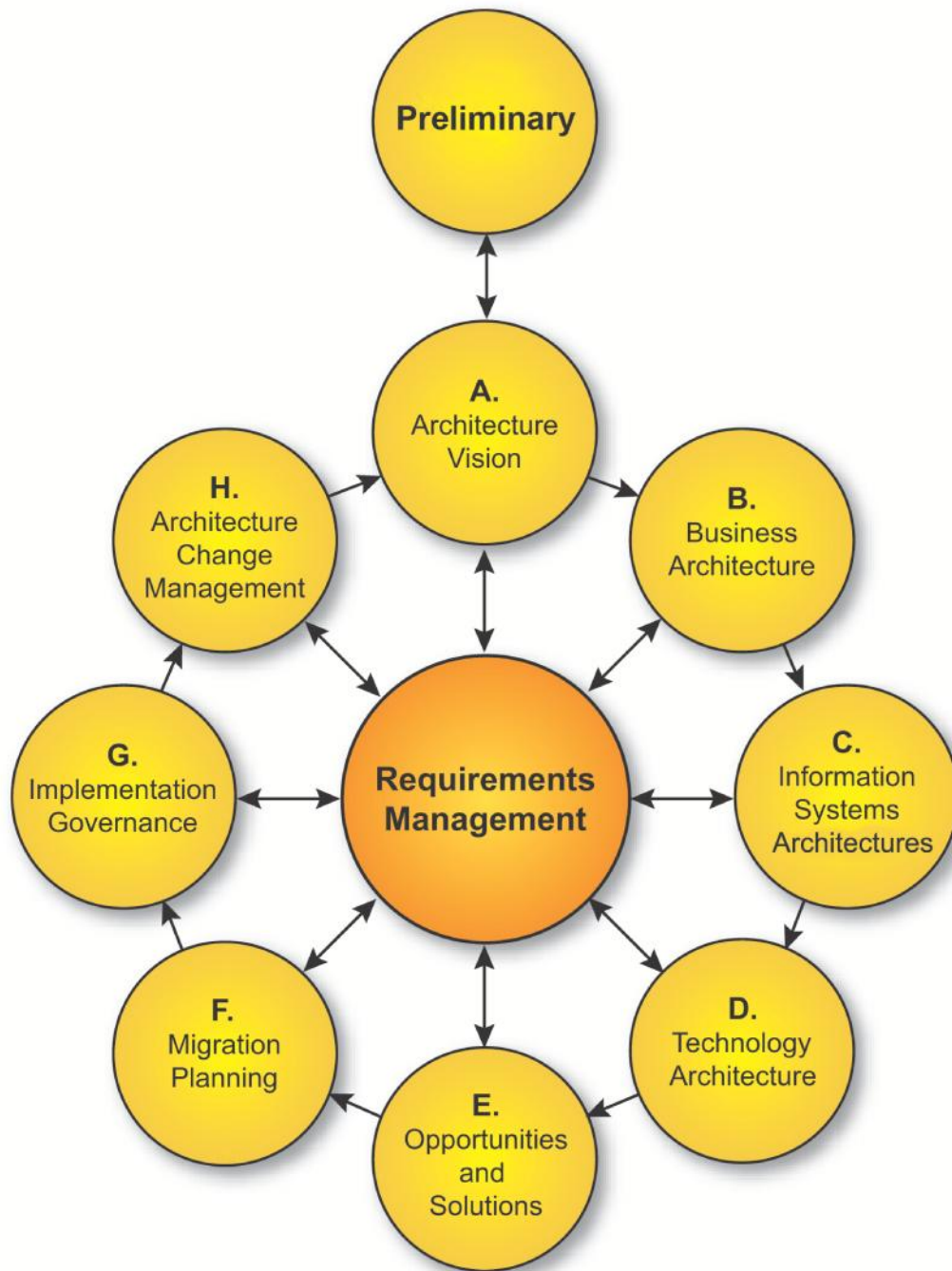
Version 9.1 Enterprise Edition

Module 19 The Integrated Information Infrastructure Reference Model

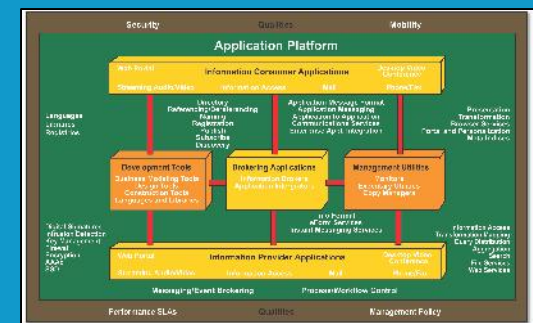
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The Integrated Information Infrastructure Reference Model



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Roadmap

Part I - Introduction
Preface, Executive Overview, Core Concepts, Definitions and Release Notes
Part II – Architecture Development Method
Introduction to ADM
ADM Phase Narratives
Part III – ADM Guidelines and Techniques
Guidelines for Adapting the ADM Process
Techniques for Architecture Development
Part IV – Architecture Content Framework
Content Metamodel
Architectural Artifacts
Architecture Deliverables
Building Blocks
Part V – Enterprise Continuum and Tools
Enterprise Continuum
Architecture Partitioning
Architecture Repository
Tools for Architecture Development
Part VI – Reference Models
Foundation Architecture: Technical Reference Model
Integrated Information Infrastructure Reference Model
Part VII – Architecture Capability Framework
Architecture Board
Architecture Compliance
Architecture Contracts
Architecture Governance
Architecture Maturity Models
Architecture Skills Framework

- Part VI, TOGAF Reference Models, Chapter 44



Module Objectives

The objectives are to:

- Describe the business and technical drivers for Boundaryless Information Flow that led to the development of the Integrated Information Infrastructure Reference Model (III-RM)
- Describe the main components of the III-RM
- Explain how the III-RM was derived
- Explain the III-RM graphic

Key Business and Technical Drivers

Problem Space: The Need for *Boundaryless Information Flow*

- The problem of getting information to the right people at the right time in a secure, reliable manner

Solution Space: The Need for Integrated Information Infrastructure

We need:

- **Integrated information** so that different and potentially conflicting pieces of information are not distributed throughout different systems
- **Integrated access to that information** so that staff can access all the information they need and have a right to, through one convenient interface

The infrastructure that enables this vision is called “integrated information infrastructure”.

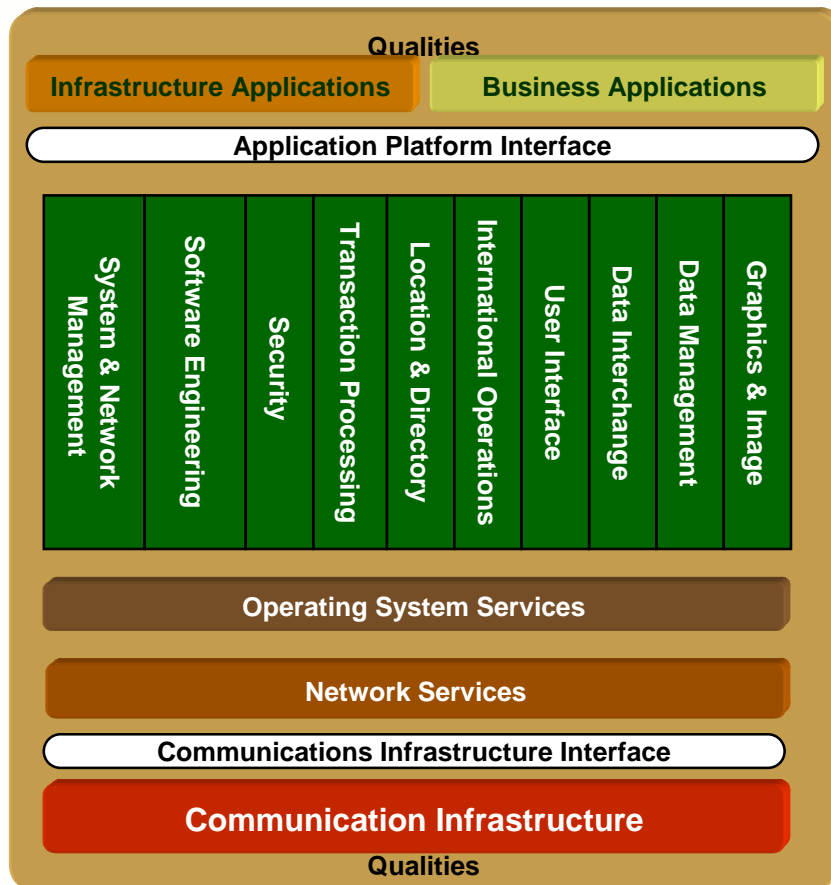


Integrated Information Infrastructure Reference Model

- A model of the key components for developing, managing, and operating an integrated information infrastructure.
 - Supporting “Boundaryless Information Flow”
- A model of a set of applications that sit on top of an application platform.
- An expanded subset of the TOGAF Technical Reference Model, using different orientation.



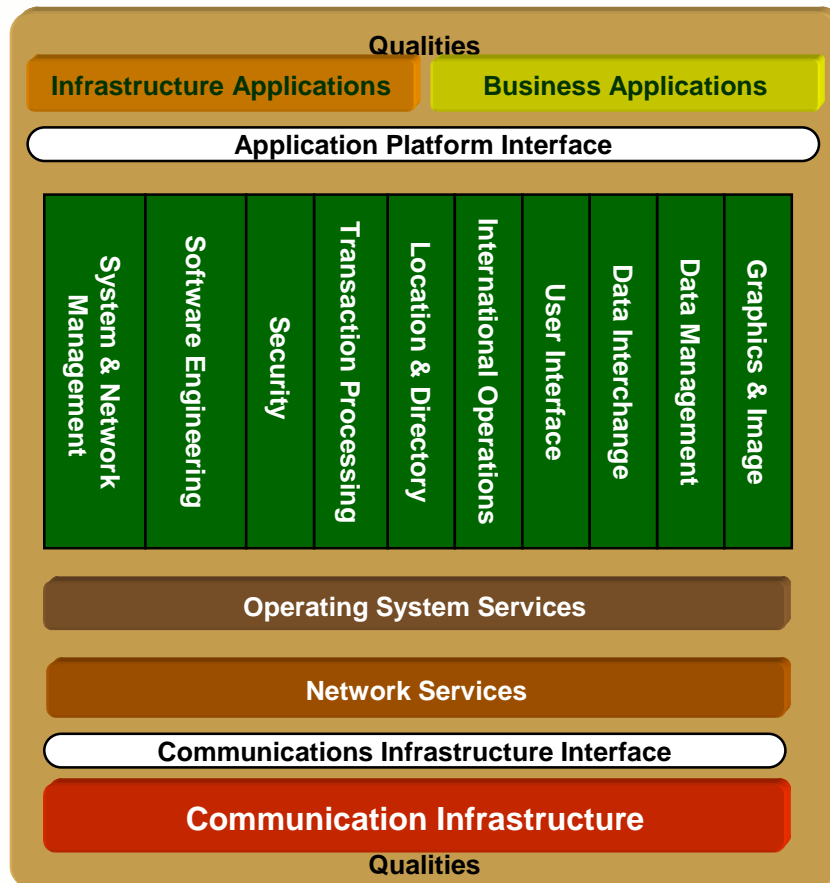
TOGAF TRM



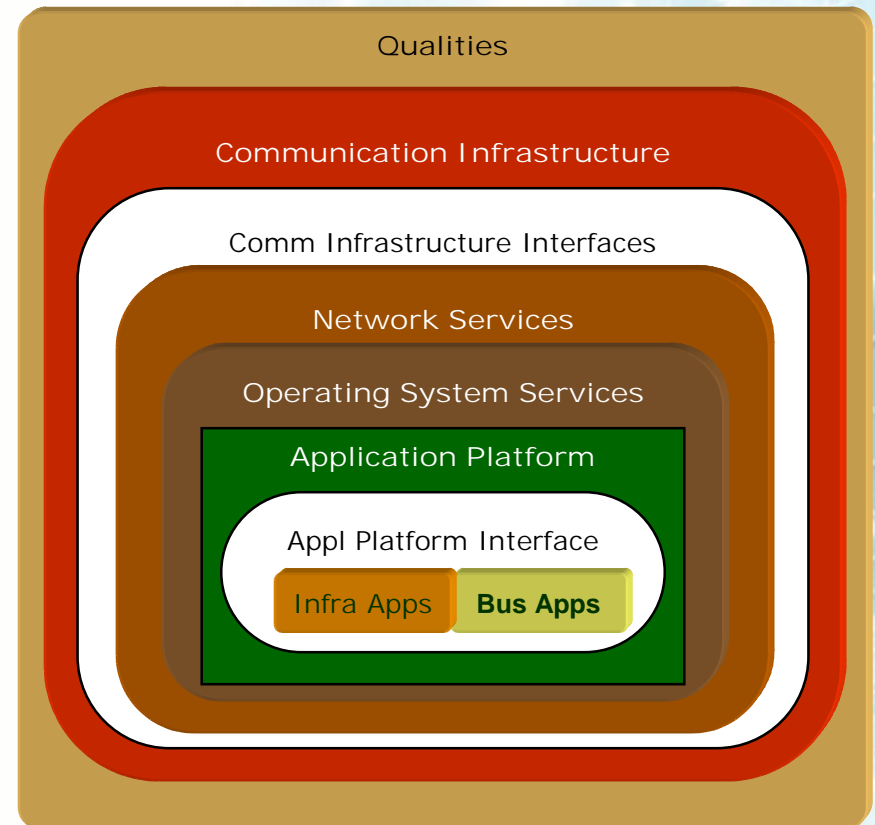
- Fundamentally a layered view, major layers being
 - Application
 - Application platform
 - Communications

TOGAF TRM Orientations

Side View

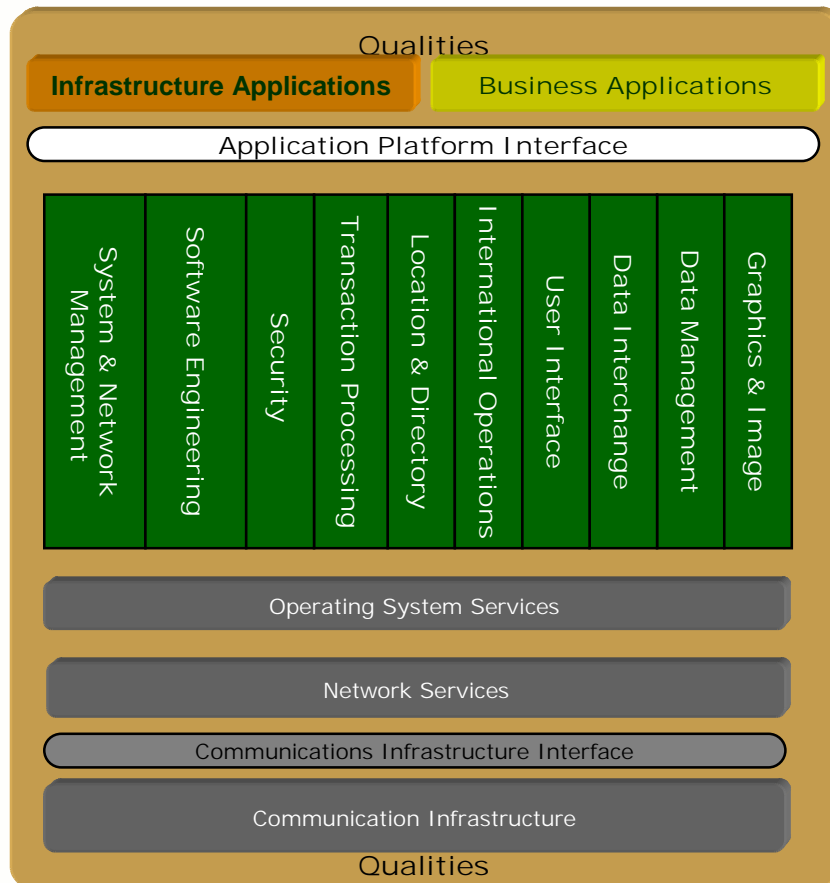


Top Down View

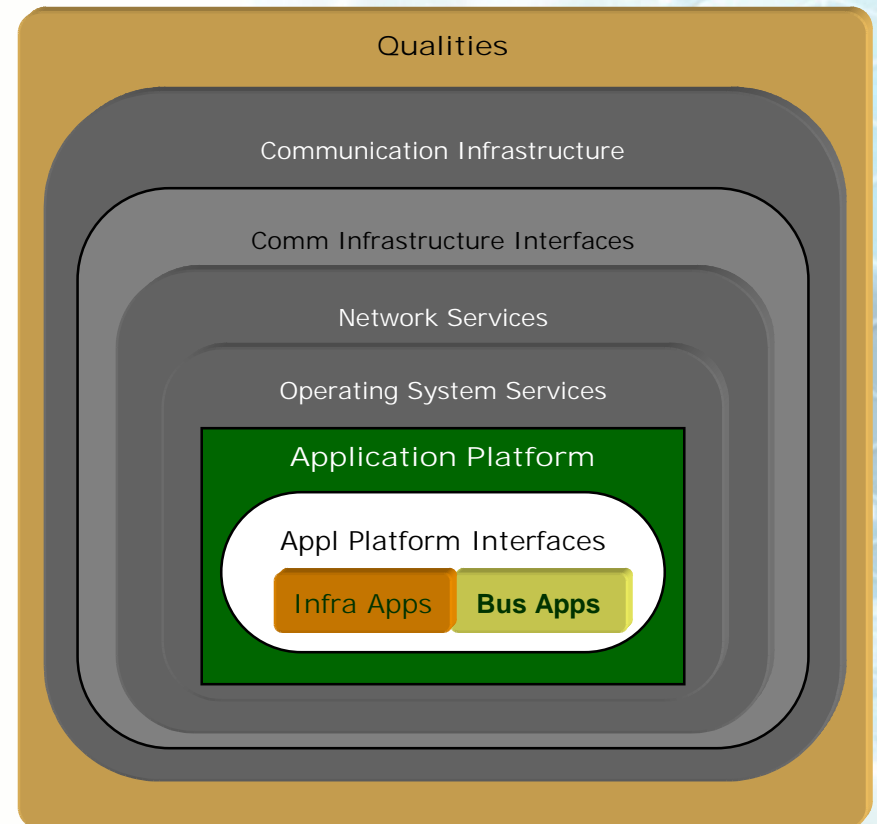


Boundaryless Information Flow Focus

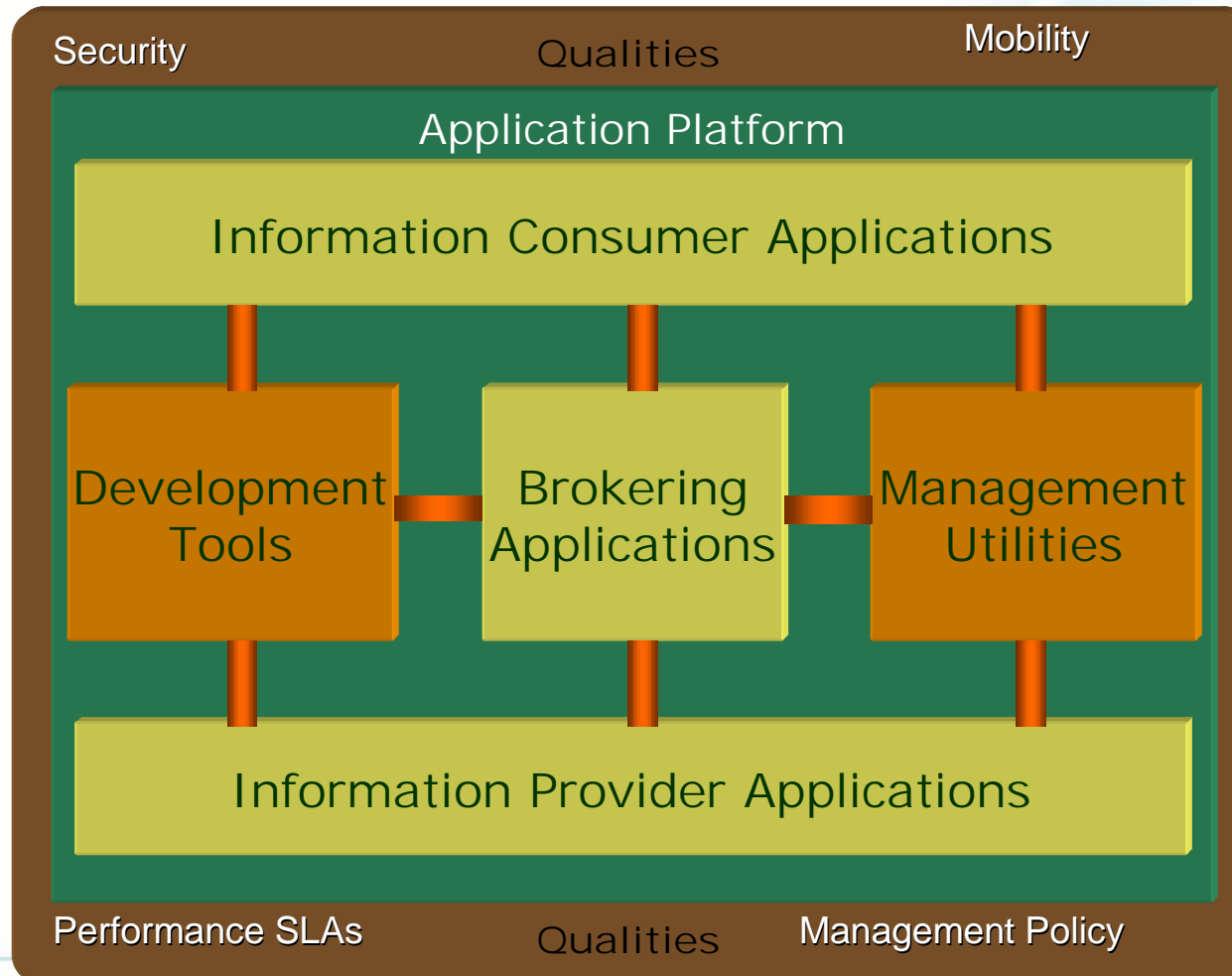
Side View



Top Down View



Integrated Information Infrastructure Reference Model – High-level Model



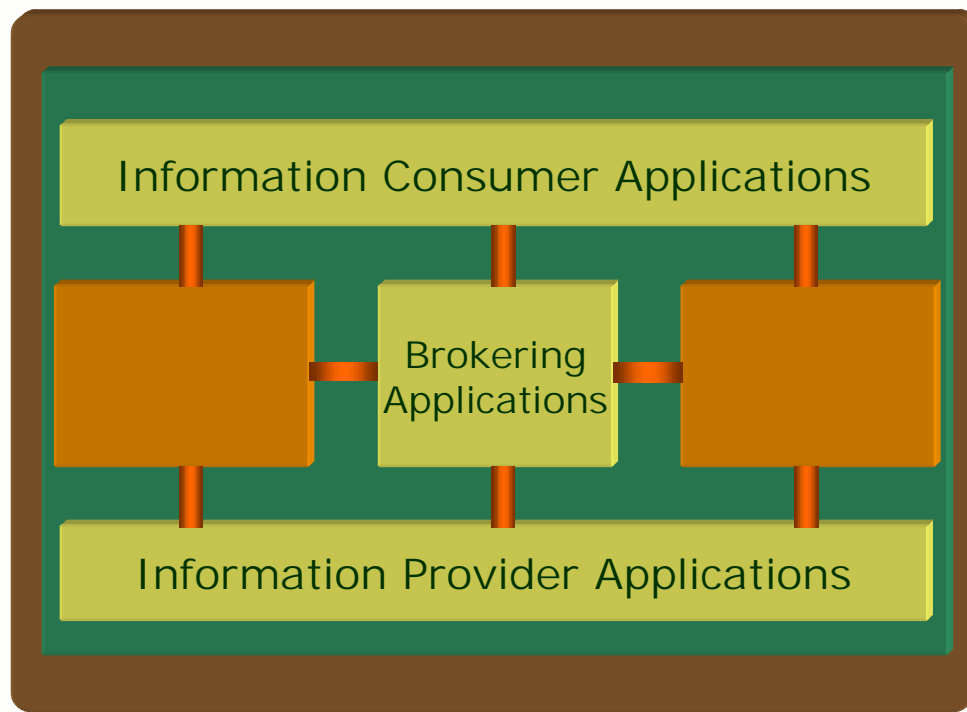
Components of the III-RM

The III-RM has 2 main components:

1. A **taxonomy**, which defines terminology, and provides a coherent description of the components and conceptual structure of an integrated information infrastructure
2. An associated **III-RM graphic**, which provides a visual representation of the taxonomy, and the inter-relationship of the components, as an aid to understanding



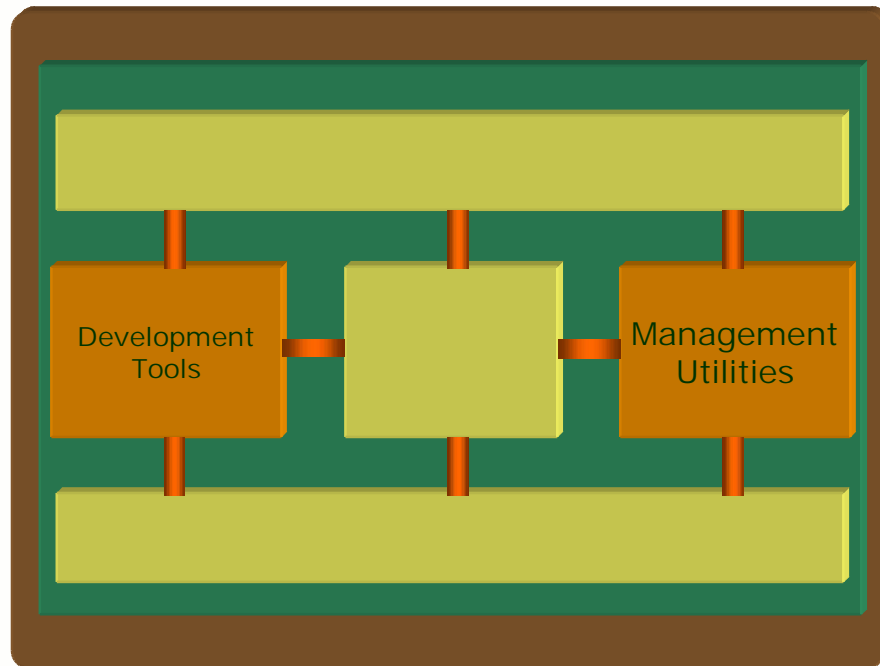
Components of the High-Level III-RM



- **Business Applications:**

- **Brokering Applications**, which manage the requests from any number of clients to and across any number of Information Provider Applications
- **Information Provider Applications**, which provide responses to client requests and rudimentary access to data managed by a particular server
- **Information Consumer Applications**, which deliver content to the user of the system, and provide services to request access to information in the system on the user's behalf

Components of the High-Level III-RM



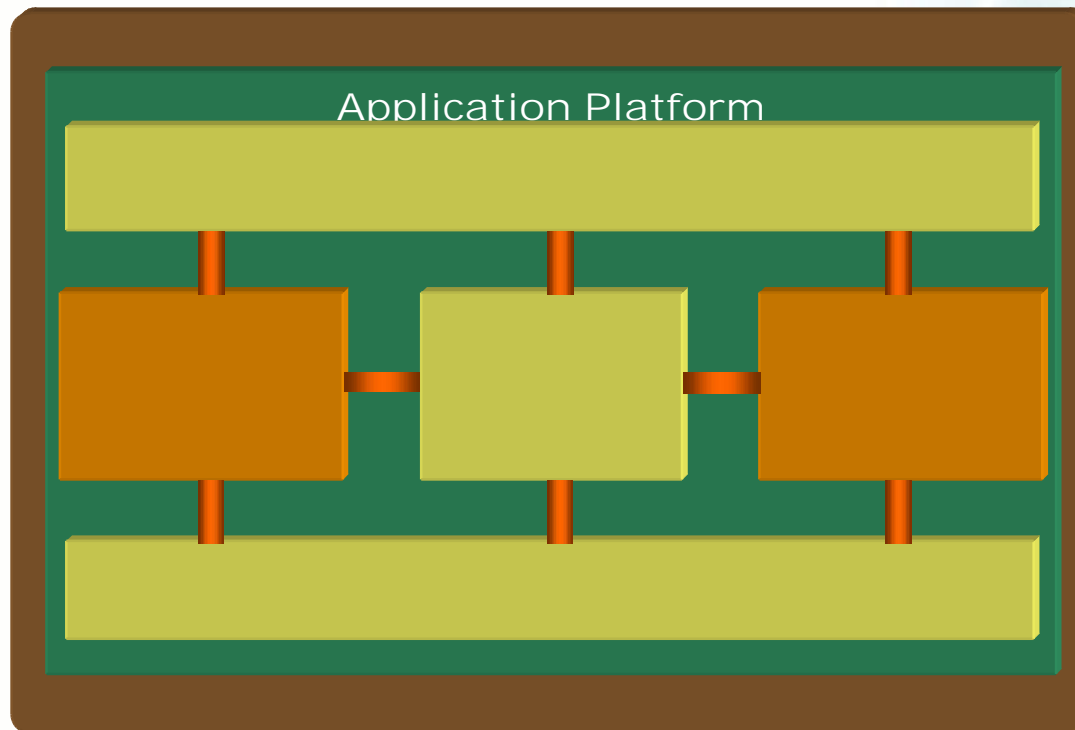
- **Infrastructure Applications:**

- **Development Tools**, to develop and deploy applications that require access to the integrated information infrastructure
- **Management Utilities**, to understand, operate, tune, and manage the run-time system in order to meet the demands of an ever-changing business



Components of the High-Level III-RM

- An **Application Platform**, which provides supporting services to all the applications and so provides the ability to locate, access, and move information within the environment.

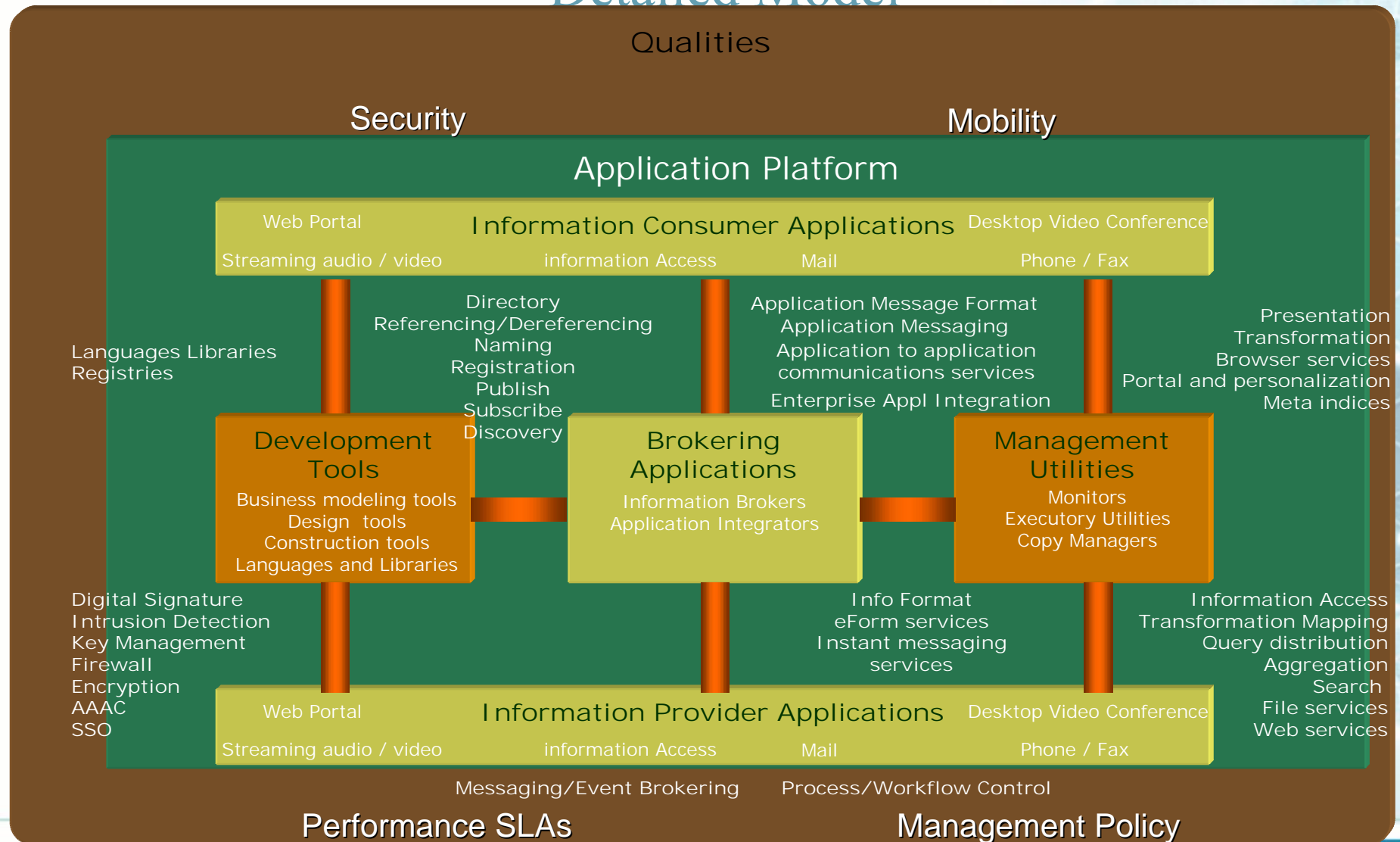


Components of the High-Level III-RM

- The **Interfaces** used between the components. Interfaces include formats and protocols, APIs, switches, data values, etc.
- The **Qualities** backplane. The Application Software and Application Platform must adhere to the policies and requirements depicted by the qualities backplane.



Integrated Information Infrastructure Reference Model – Detailed Model



Slide 16 of 18

Summary

- The III-RM has 2 main components: a **taxonomy**, and an associated **graphic**.
- A key driver for the III-RM is the Need for Boundaryless Information Flow: getting information to the right people at the right time in a secure, reliable manner
- The infrastructure that enables this vision is called the “integrated information infrastructure”.
- The III-RM has Business Applications, Infrastructure Applications, an Application Platform, Interfaces and Qualities

III-RM

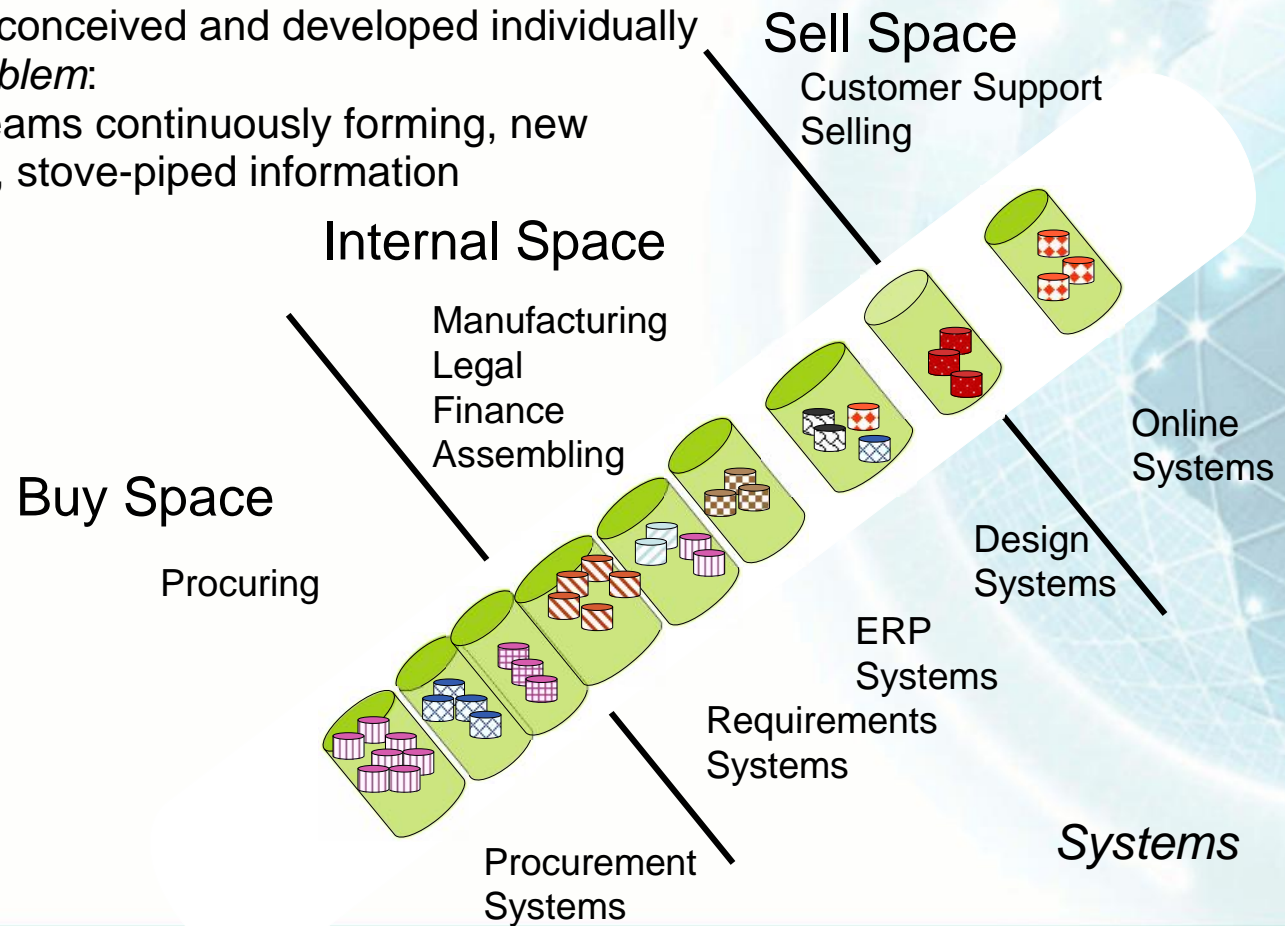
Business and Technical Drivers

The cause:

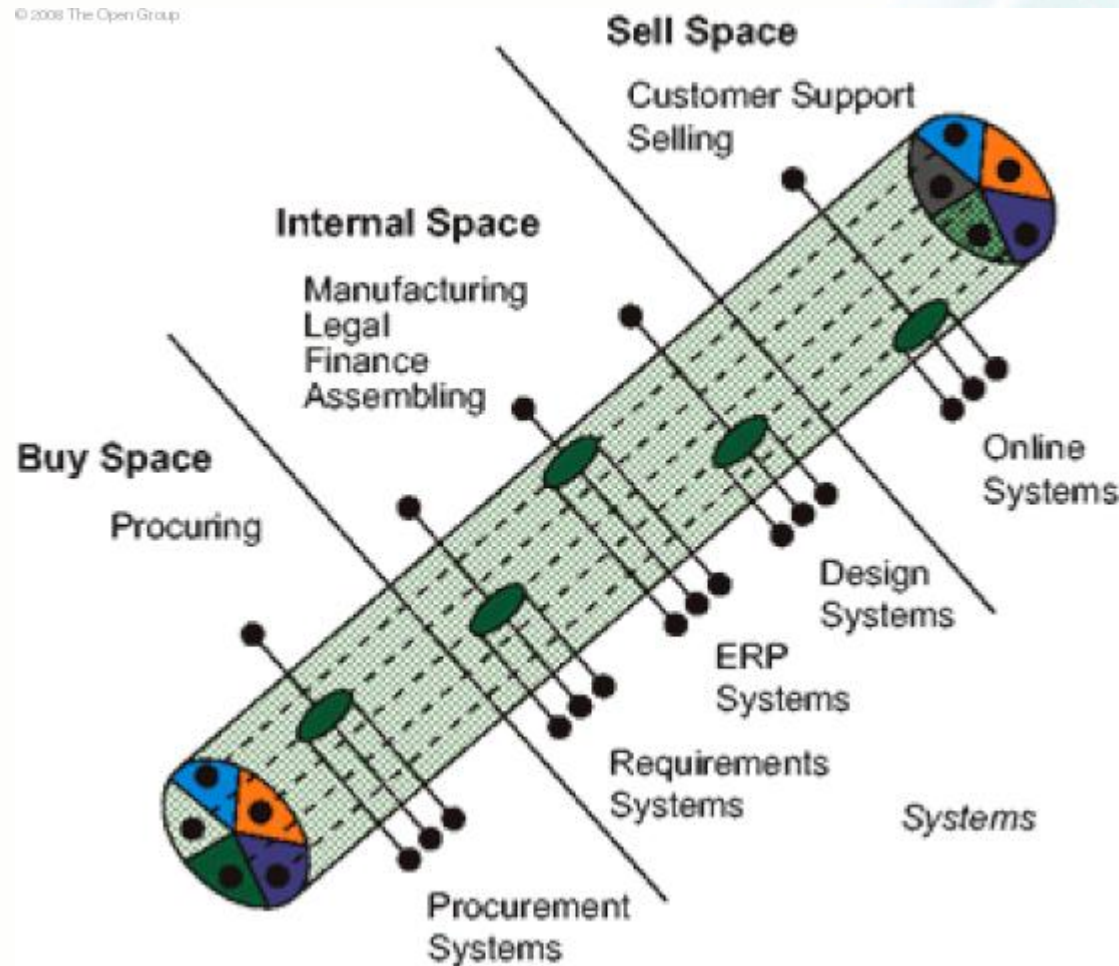
- multiple systems, conceived and developed individually

Compounding the problem:

- cross-functional teams continuously forming, new business partners, stove-piped information

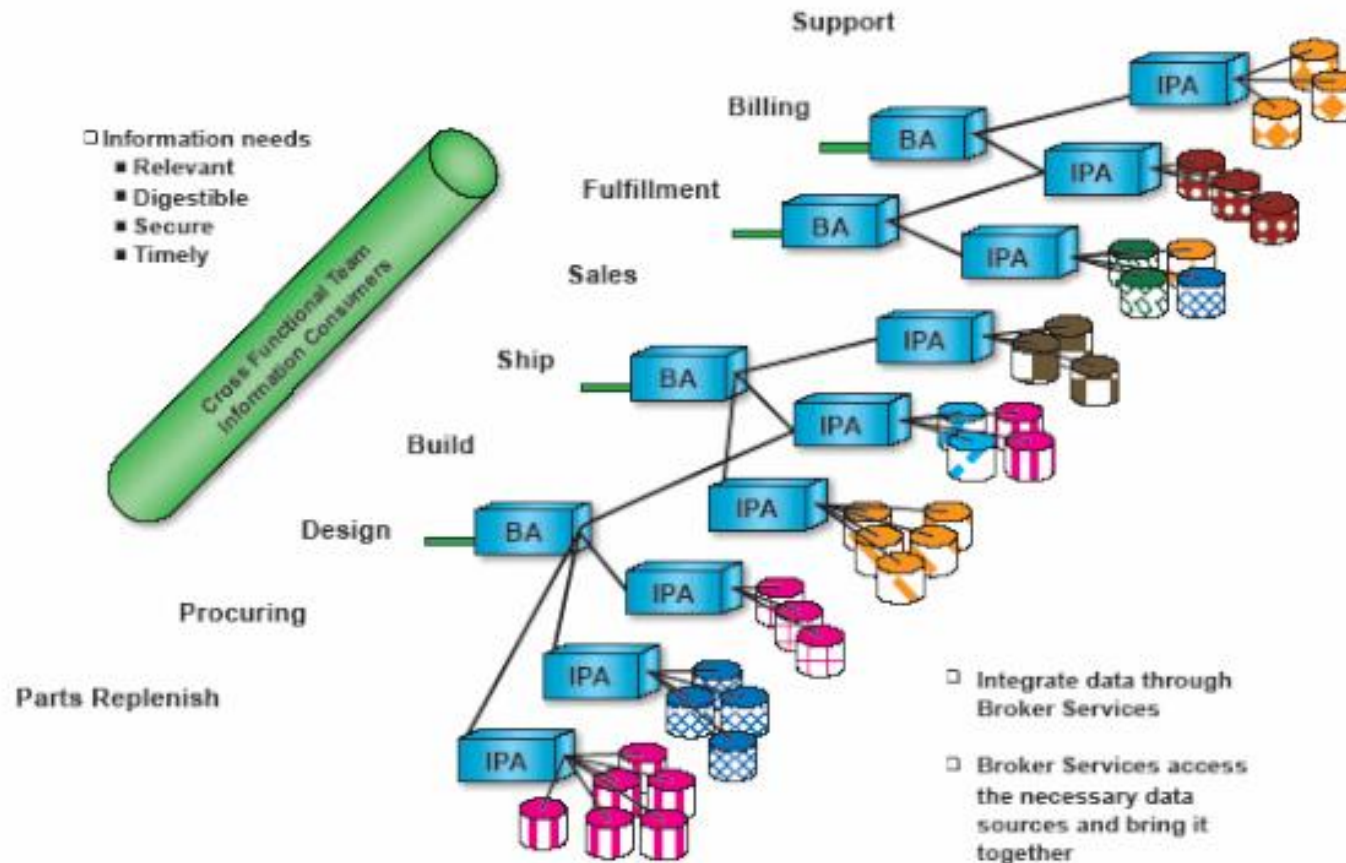


An approach to Boundary less Information Flow (Enterprise Portals)

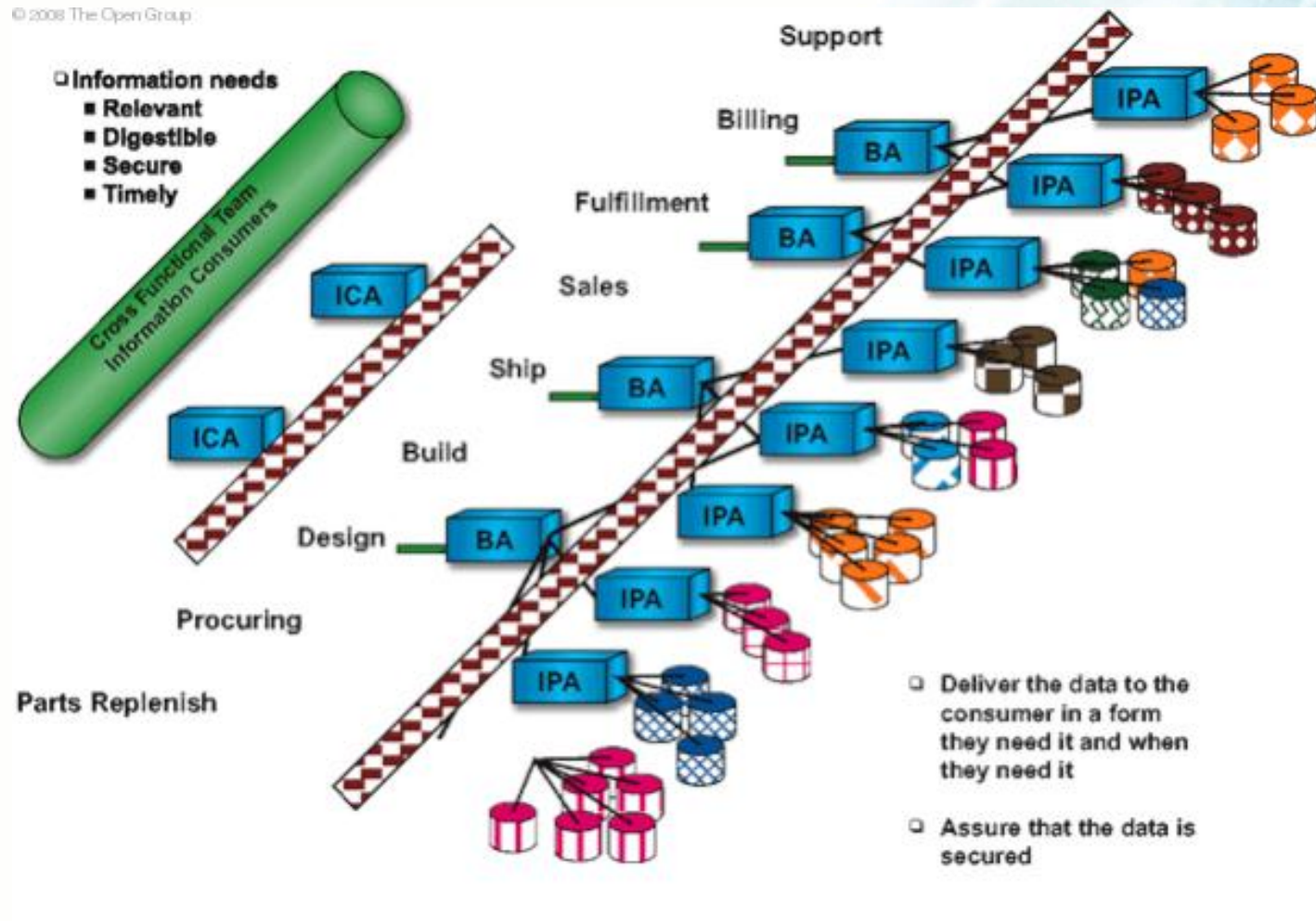


Brokerage Applications Integrate Information from Information Provider Applications

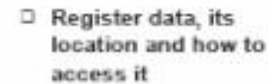
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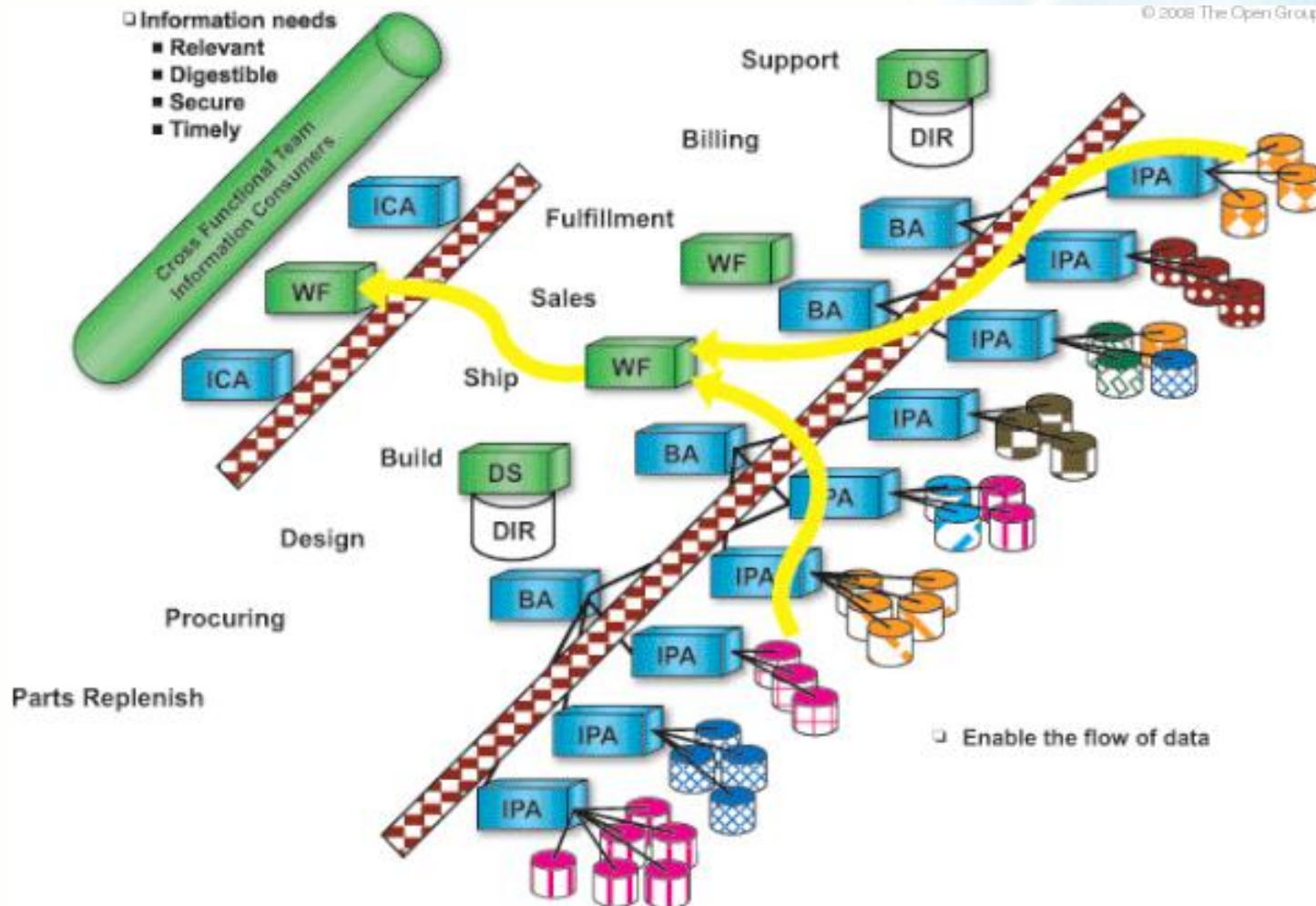
Information Consumer Applications Communicate using Open Interfaces



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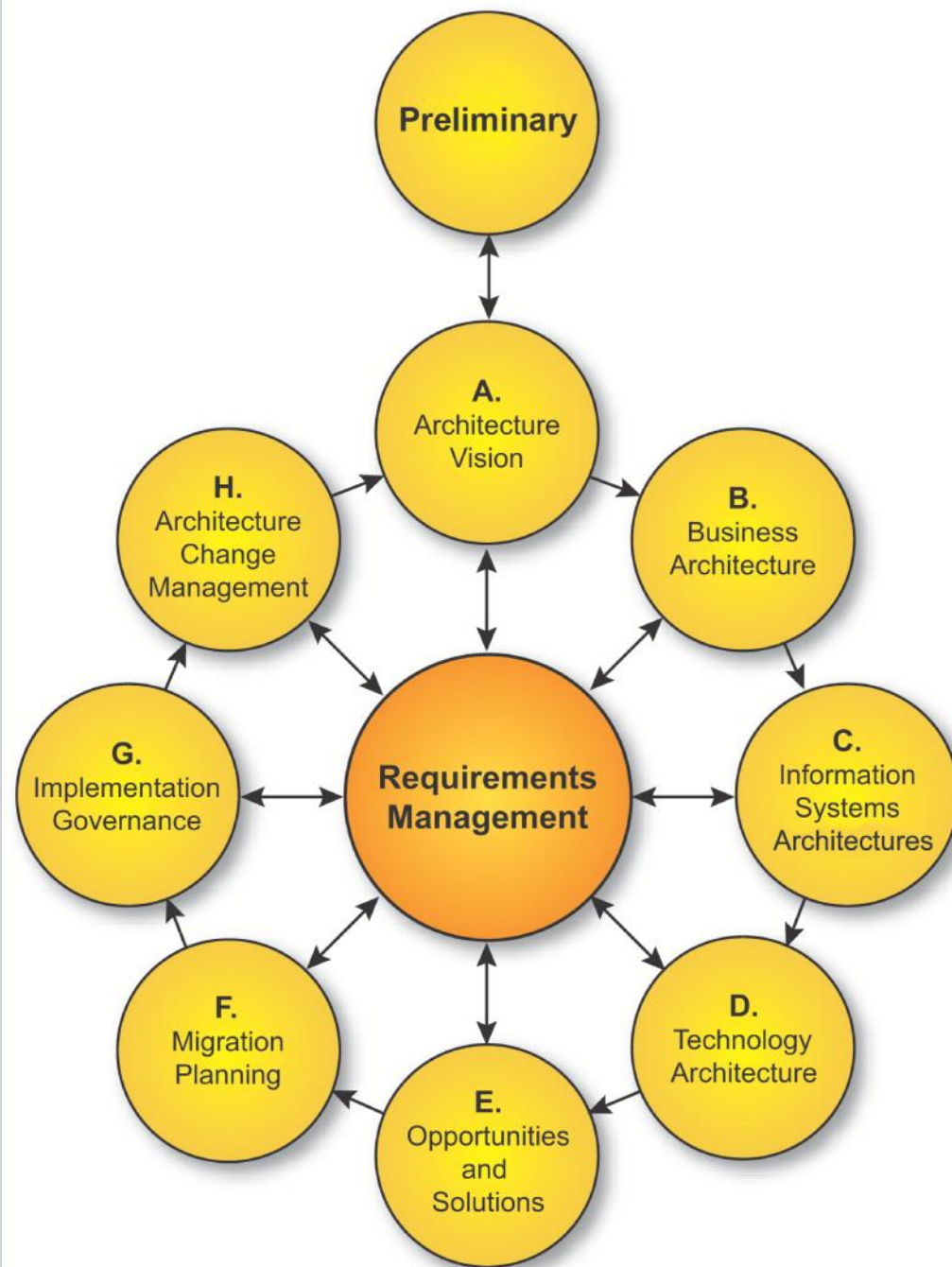


Workflow Services Enable Information Flow

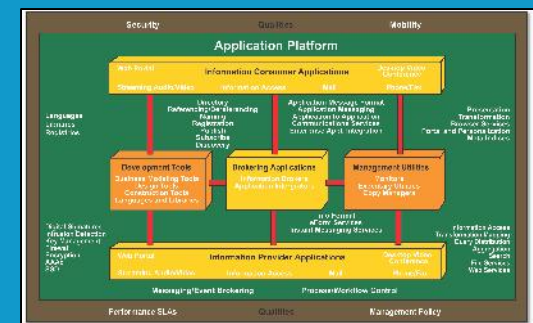


Exercises

1. The use of the I3RM is not mandatory. What other taxonomies and reference models do you know of that could be used in conjunction with the ADM?
2. In what situation(s) would the use of another reference model be preferable, and why?



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