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Version 9.1 Enterprise Edition

Module F12
TOGAF Reference Models

THE Open GROUP

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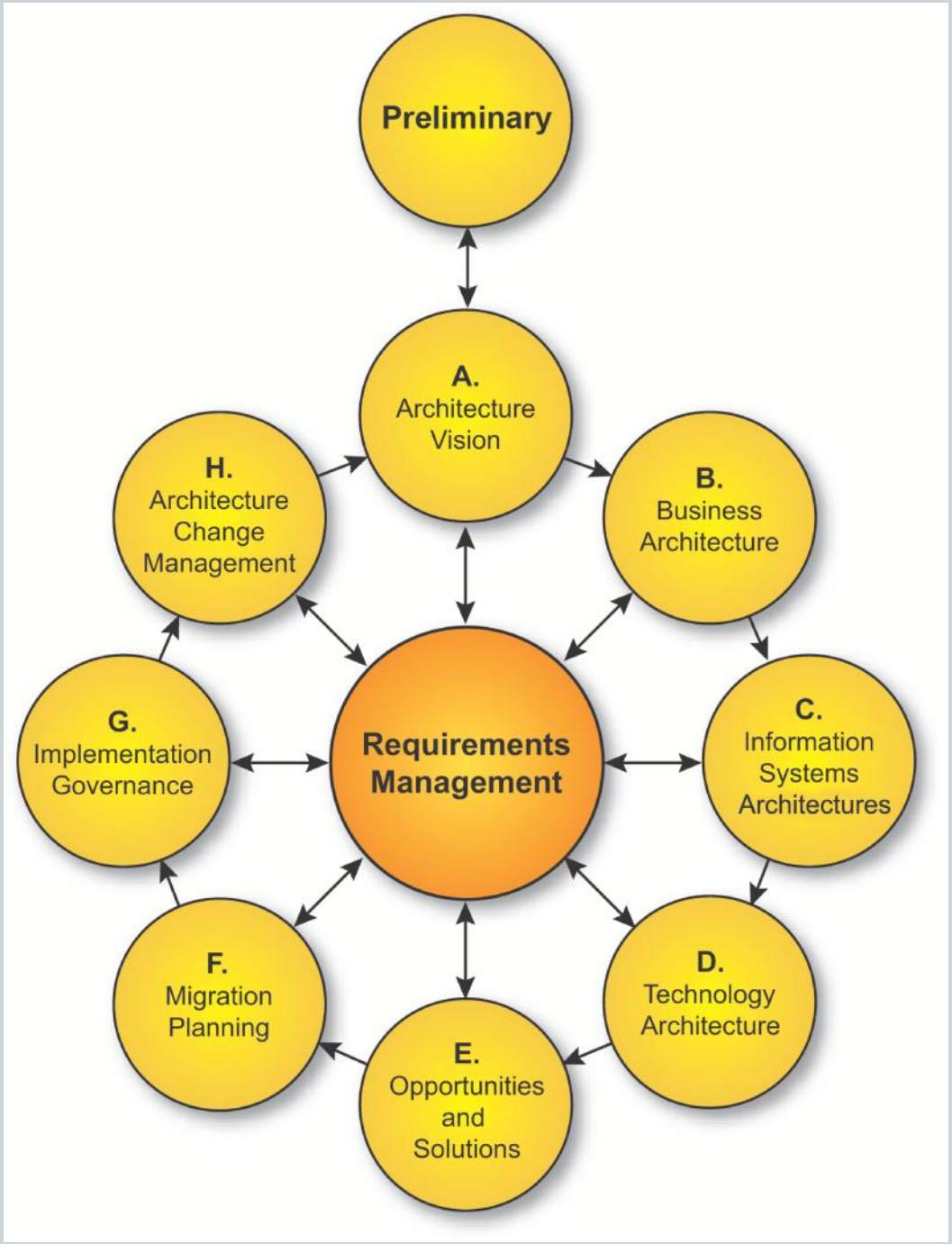

TOGAF Reference Models

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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 43 and 44

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Module Objectives

The aim of this module is to introduce the two TOGAF Reference models:

- The TOGAF Technical Reference Model (TRM)
- The Integrated Information Infrastructure Reference Model (III-RM).

And the relationship of the III-RM to the concept of *Boundaryless Information Flow*™

TOGAF Foundation Architecture

A Foundation Architecture is an architecture of building blocks and corresponding standards that supports all the Common Systems Architectures and, therefore, the complete enterprise operating environment.

- TOGAF provides the TRM as a Foundation Architecture.
- The ADM supports specialization of such Foundation Architectures in order to create organization-specific models.
- The TRM is an example of a Foundation architecture (an architecture of generic services and functions) on which other, more specific architectures can be based.

The Architecture Continuum

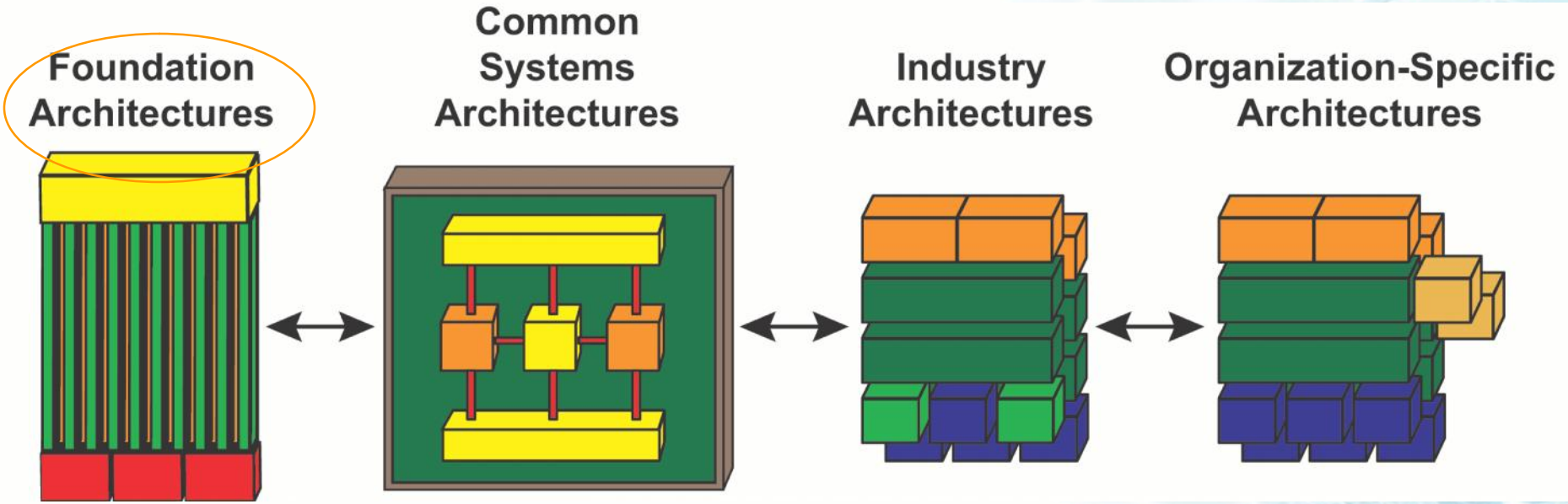
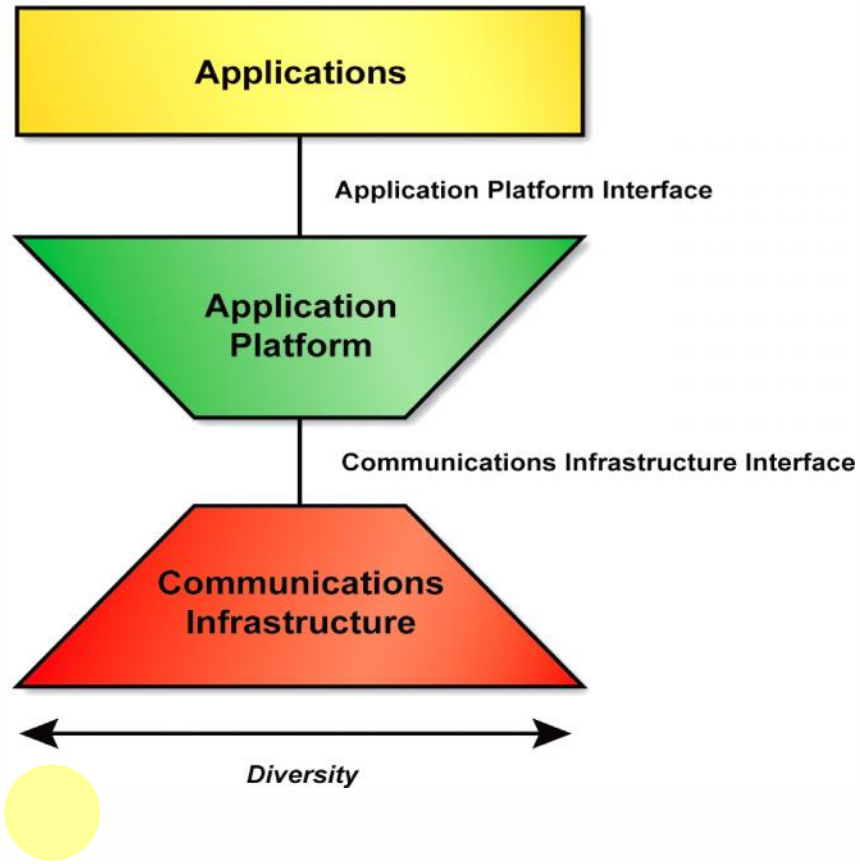


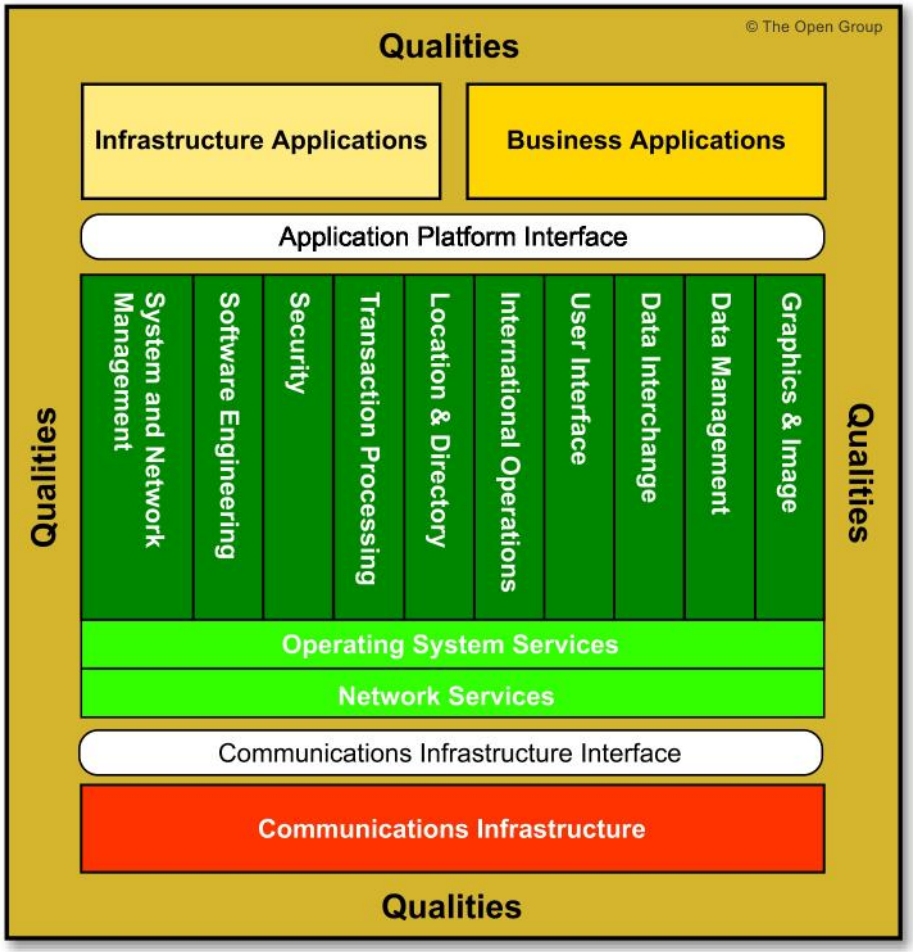
Figure 1

TRM Components



- The TRM has two main components:
  - A taxonomy that defines terminology and provides a coherent description of the components and conceptual structure of an information system
  - An associated TRM graphic that provide a visual representation as an aid to understanding

Summary of the TRM



The TOGAF Technical Reference Model provides a model and core taxonomy of generic platform services

- It is a Foundation Architecture
- It can be used to build any system architecture
- A taxonomy defines consistent terminology

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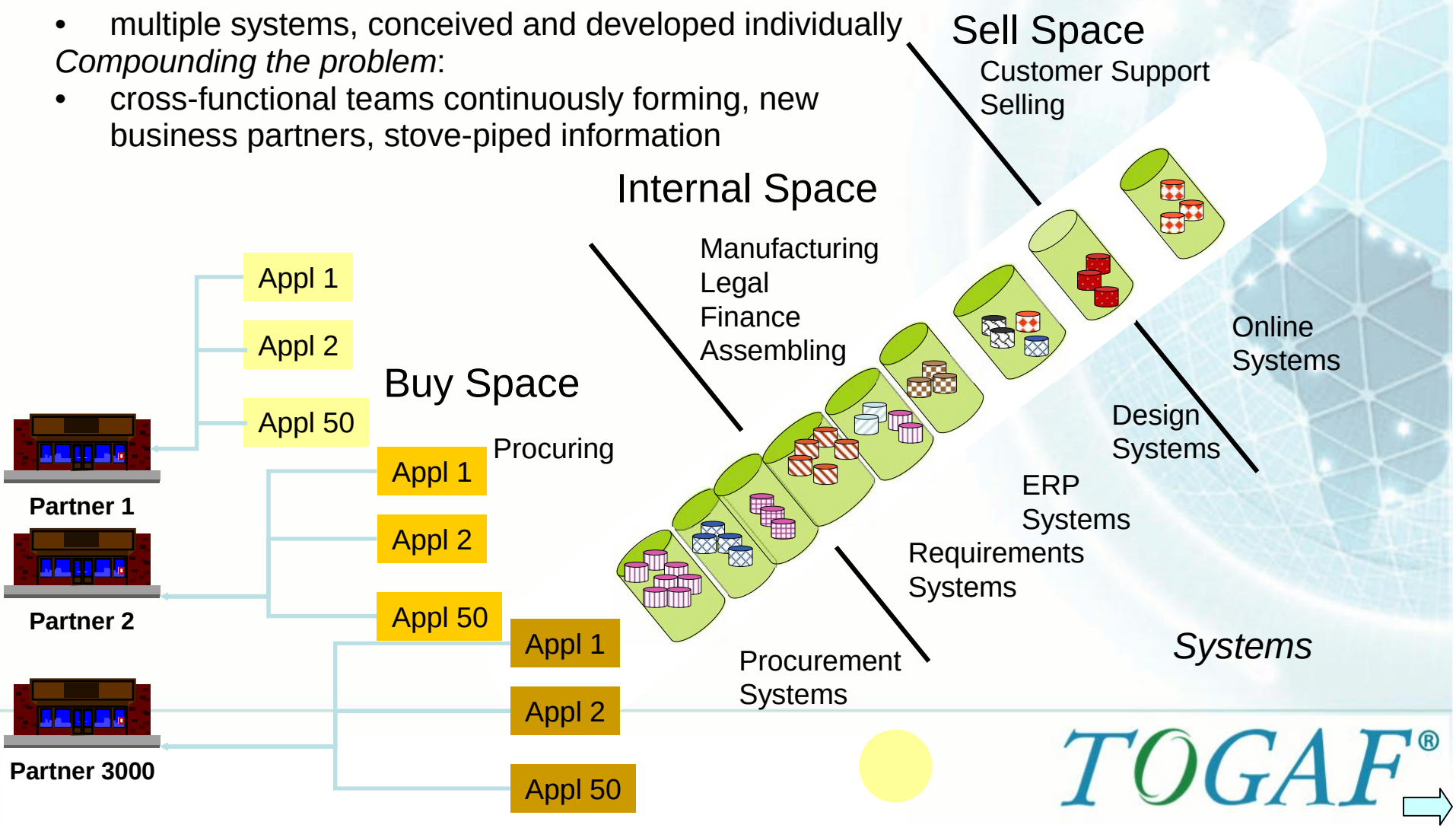
A common problem

The cause:

- multiple systems, conceived and developed individually

Compounding the problem:

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



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Customer problem statement

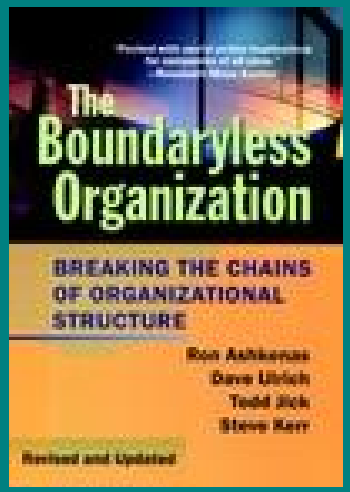
- "I could run my business better if I could gain operational efficiencies improving
  - **the many different business processes of the enterprise**
    - **both internal, and**
    - **spanning the key interactions with suppliers, customers, and partners using**
  - **integrated information, and access to that information."**

Source: "The Interoperable Enterprise"
http://www.opengroup.org/cio/iop/index.htm

A Shared Vision

Boundaryless Information Flow™

- achieved through global interoperability
- in a secure, reliable and timely manner



Boundaryless does not mean there are no boundaries – it means that boundaries are permeable to enable business.

Vision

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How Important…

- Not having Boundaryless Information Flow where systems interoperate, i.e. easily exchange information and use that information to improve operations, is causing organizations real pain *
  - 100s of millions in lost opportunities
  - Billions spent to make systems interoperate or to recover from mistakes
  - *The risks are not only financial but deal with lost lives*
    - *Hospitals, 911/999 systems, Critical infrastructure, Air Traffic Control…*

* respondents to survey taken at conference

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.

The Architecture Continuum

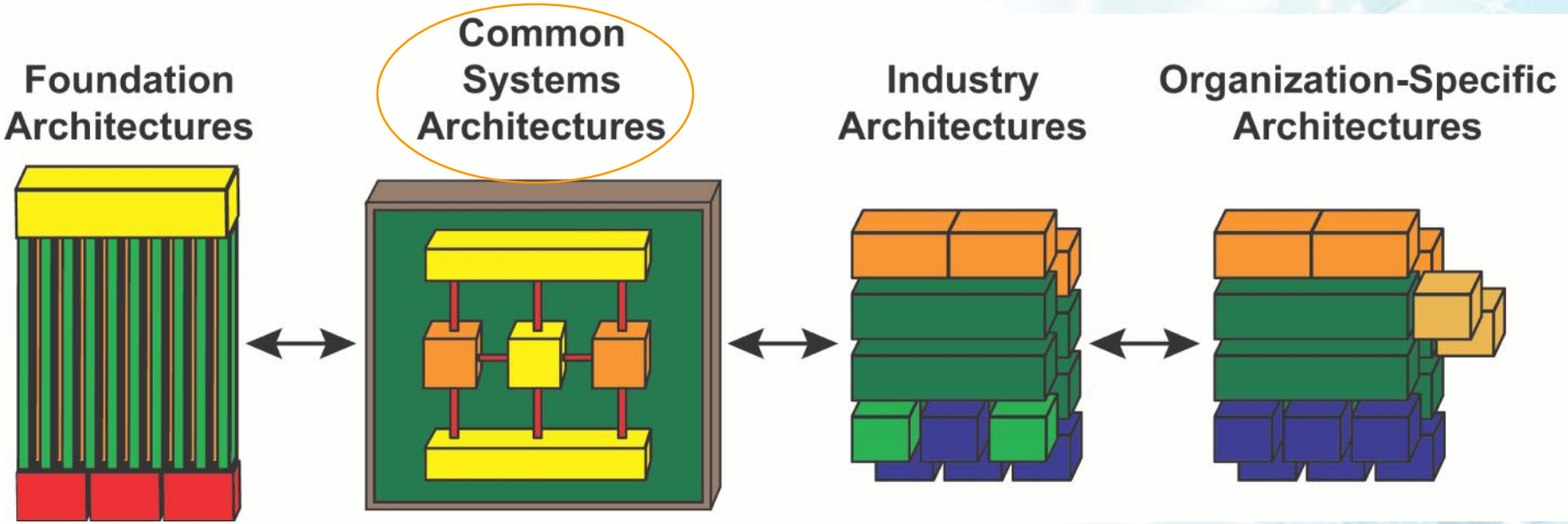
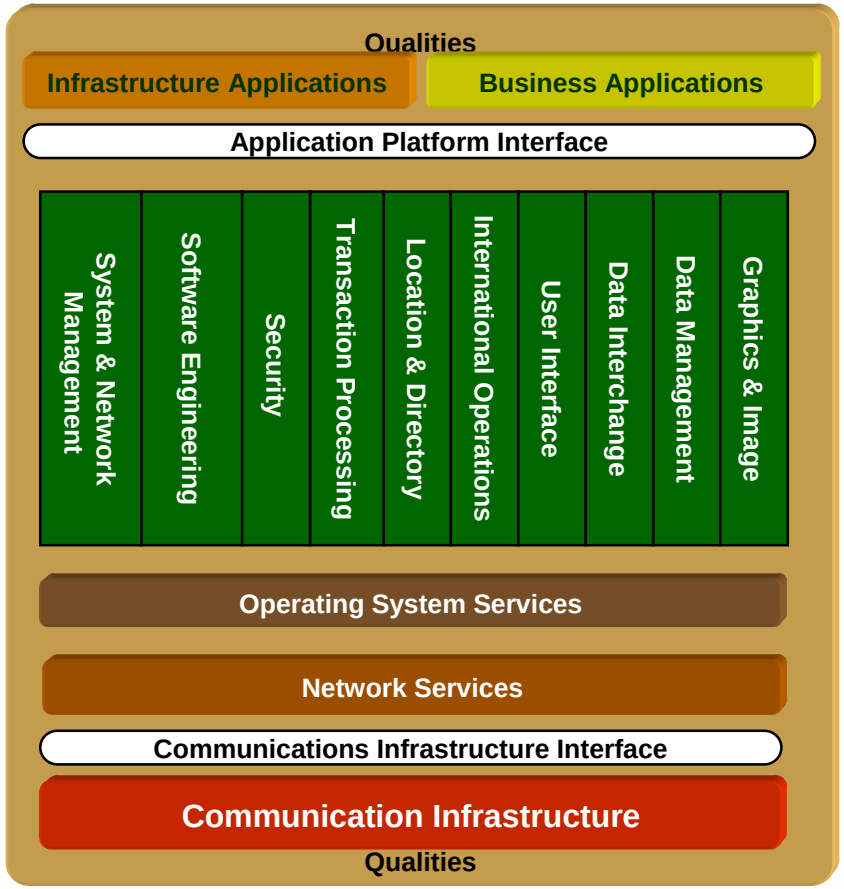


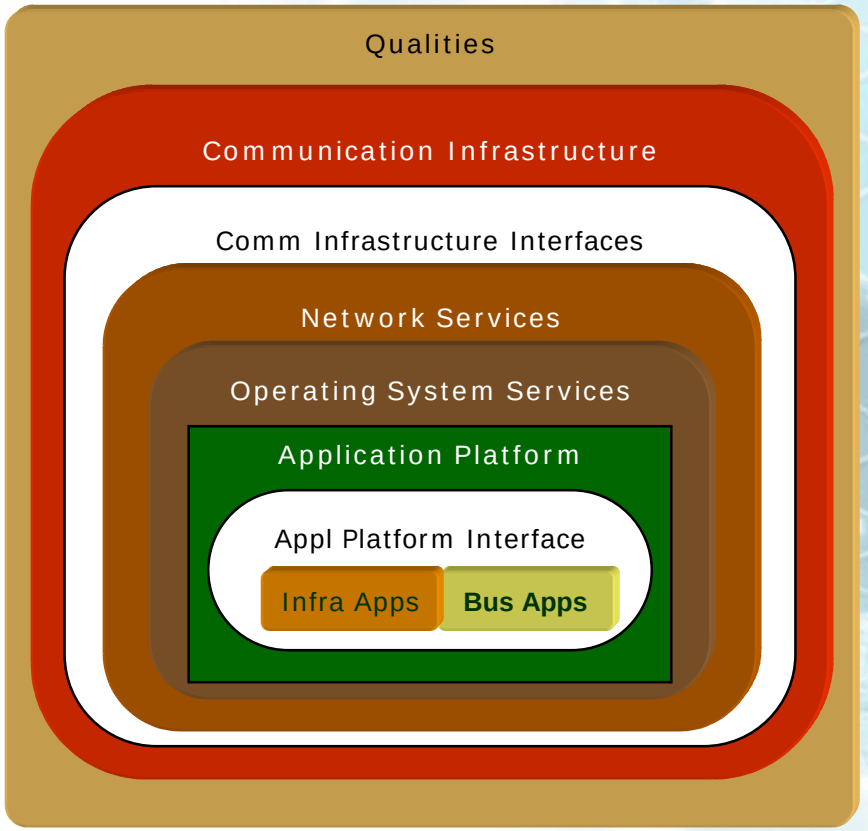
Figure 1

TOGAF TRM Orientations

Side View



Top Down View



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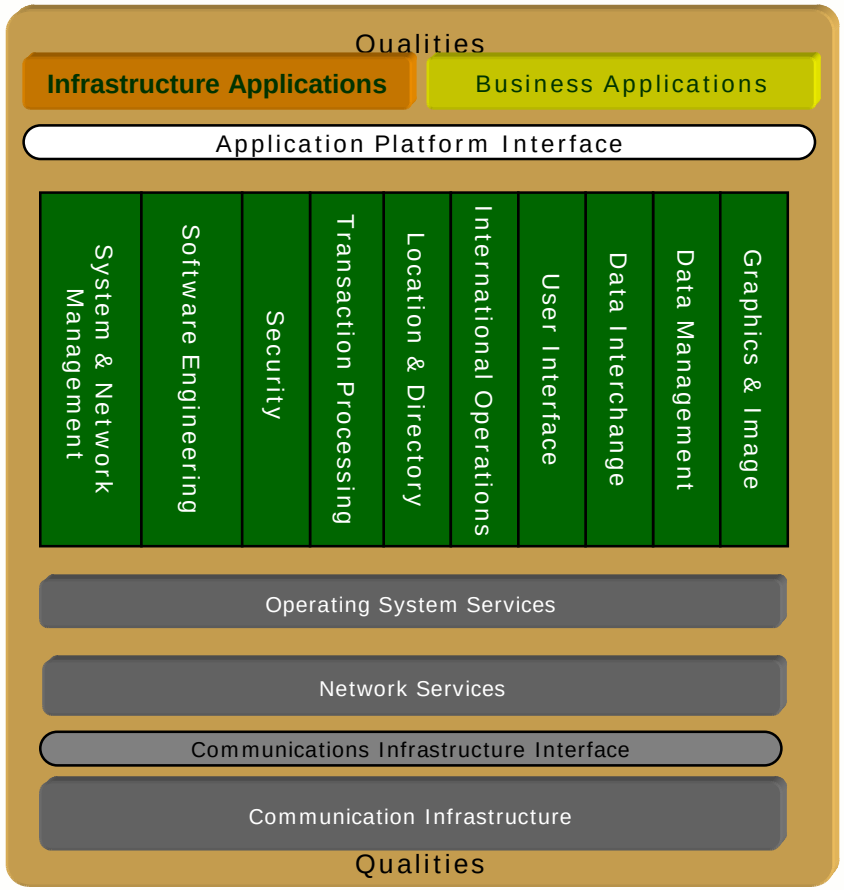
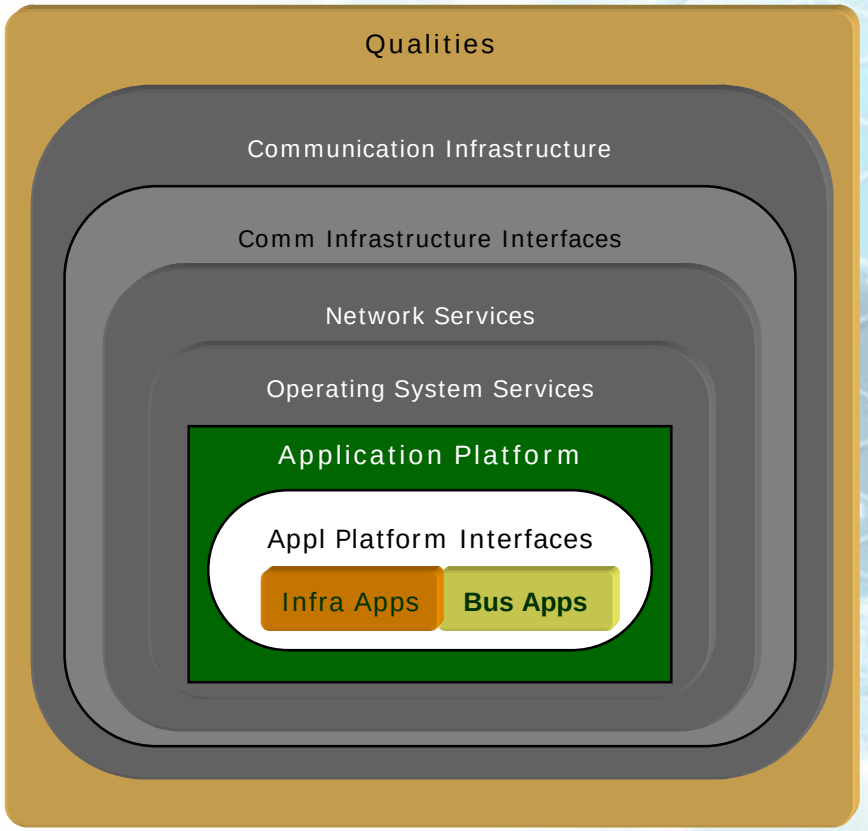
Boundaryless Information Flow Focus

Side View



Top Down View



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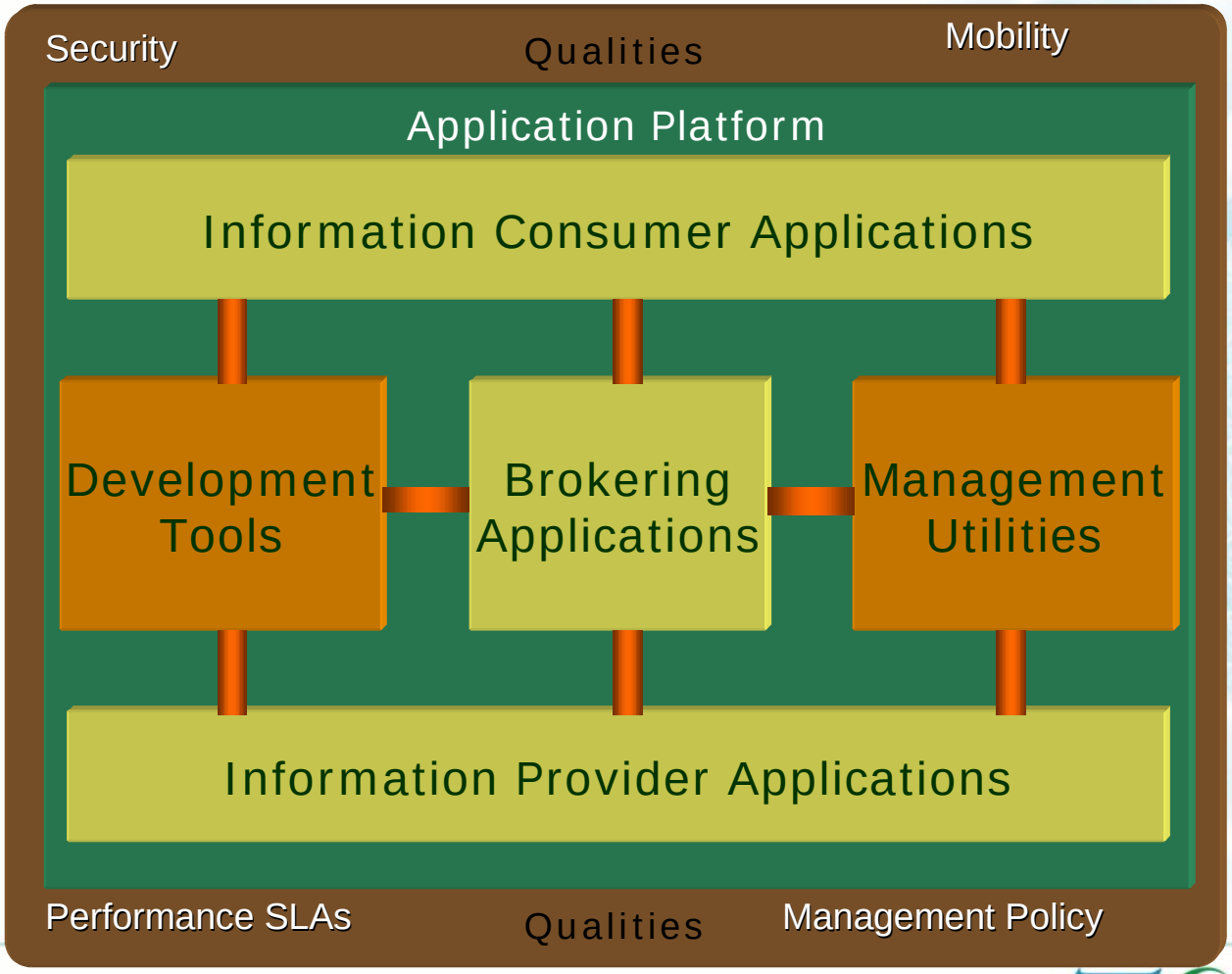
Integrated Information Infrastructure Reference Model – High-level Model



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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

Summary of the III-RM

- The III-RM is an example of a Common Systems Architecture
- The focus is on applications
- 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’’.

Test Yourself Question

- Which of the following best describes the purpose of the TRM?

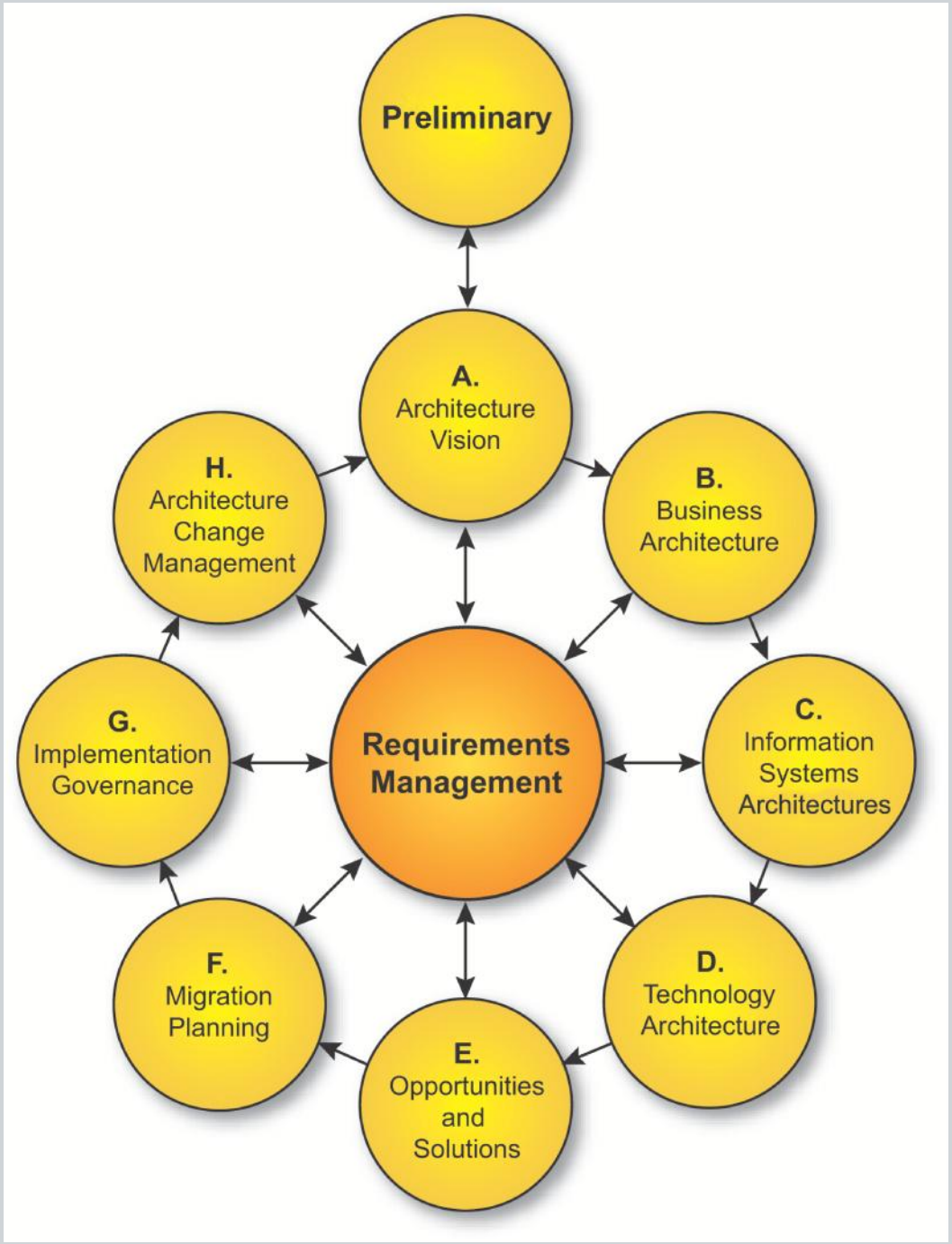
A. To provide a framework for IT governance

B. To provide a visual model and taxonomy for an information system

C. To provide a list of standards

D. To provide a software development method

E. To provide a system engineering viewpoint in a possible solution



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