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Create an Enterprise Architecture Strategy in 3 Steps

Building the Framework for Successful IT

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Introductions

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Why Do Healthcare Organizations Need an Enterprise Architecture Strategy?



CHANGE. Business needs and Technology are constantly changing

The healthcare industry is facing a **DYNAMIC MARKET**, creating both challenges and opportunities

- Exchange Government Markets Growth and Privatization
- Changing Demographics
- Retail Transformation
- Digitization of Healthcare IT

CHANGE in Technology

- Social networking connecting patients to providers, patients to patients, etc.
- Agile Development and Implementation
- Cloud technologies and solutions
- Recent large investments by providers (for EMR's and meaningful use)
- Big Data and the use of data in healthcare – a long way to catch up to other industries
- Tele-Health allowing for consultations with clinicians in more convenient locations than the medical office or hospital
- Using smartphones to deliver care management services to high-risk patients daily, securely and with personal communications
- Technology allowing patients to learn more about their personal health issues and treatments and the quality of their providers
- Health data transmitted to caregivers via mobile devices or in-home monitors

How do to manage
so much change?



Establish an **ENTERPRISE**
ARCHITECTURE STRATEGY

What is Enterprise Architecture?



EA is CONCEPTUAL BLUEPRINT
that defines the structure and
operation of an organization

Enterprise Architecture Defined

- Framework which guides investment and design decisions and specifies standards, interfaces and common services for the deployment and management of IT assets, in support of business objectives.
- Defines an environment that is adaptable to unforeseen requirements and future system changes.
- EA is the link between the Business Strategy, the IT strategy and IT implementation.
- It is an integral part of the strategic planning process and provides guidance to those implementing and managing IT resources (data, applications and technology).

EA Methodologies Available

GOVERNMENT

- The Federal Enterprise Architecture



PROPRIETARY

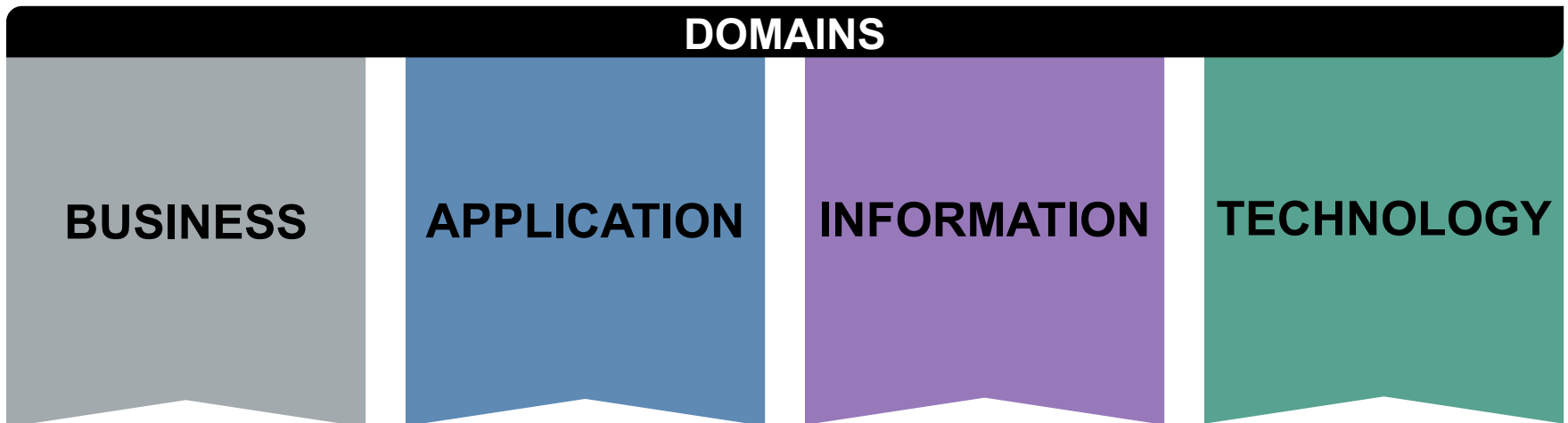
- The Zachman Framework for Enterprise Architectures
- The Gartner Methodology

GROUP DEVELOPED

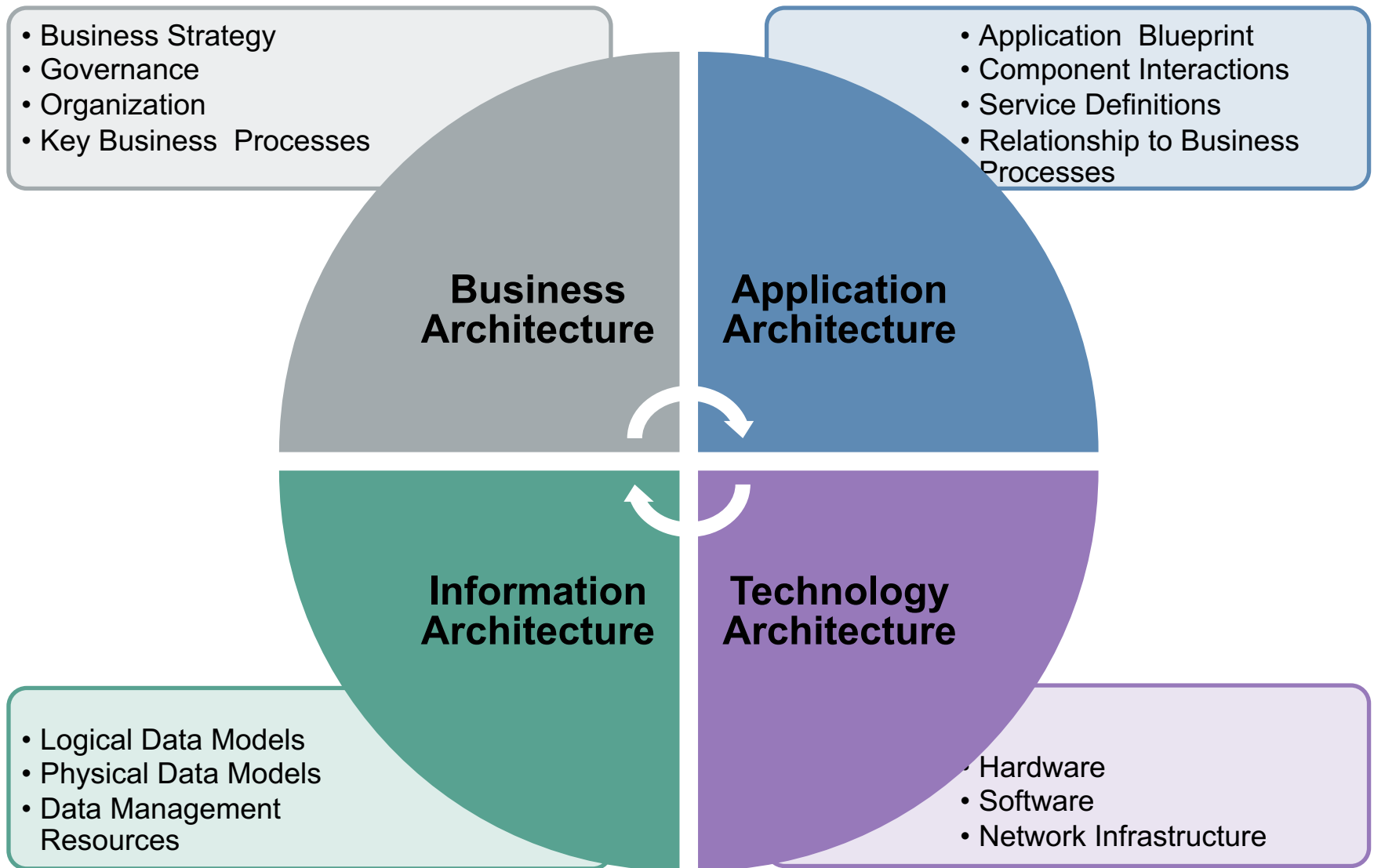
- The Open Group Architectural Framework (TOGAF)

TOGAF

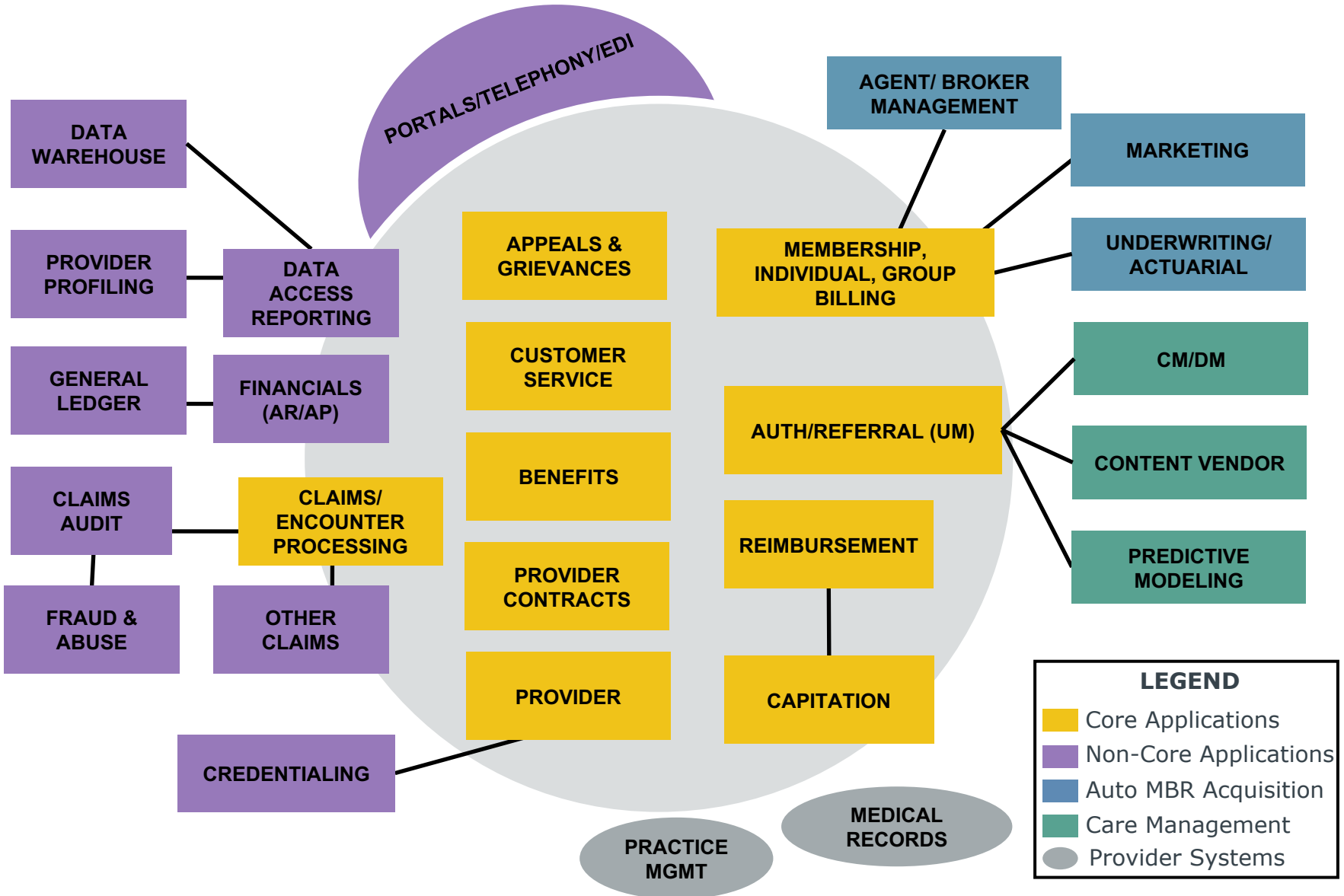
- The Open Group is a global consortium that enables the achievement of business objectives through IT standards.
- Open Group Standard, **is a proven enterprise architecture methodology** and framework used to improve business efficiency.
- It is the most prominent and reliable enterprise architecture standard.



TOGAF Four Domain Areas



The Application Architecture of a Health Plan



What is the intent of Enterprise Architecture Strategy?



The intent of an EA strategy is to determine how an organization can **MOST EFFECTIVELY ACHIEVE IT'S CURRENT AND FUTURE OBJECTIVES**

How do we apply EA to make a difference?



**Develop a Change Framework with
CONSTANT CHANGE AS THE FIRST
PRINCIPLE** and understand that healthcare
organizations need the latitude to develop or
procure their own solutions.

3

Three Steps to an Enterprise Architecture

Three Steps to an Enterprise Architecture

-  **1** Business Alignment
-  **2** Establish a Change Framework
-  **3** Communication & Transparency

Business Alignment



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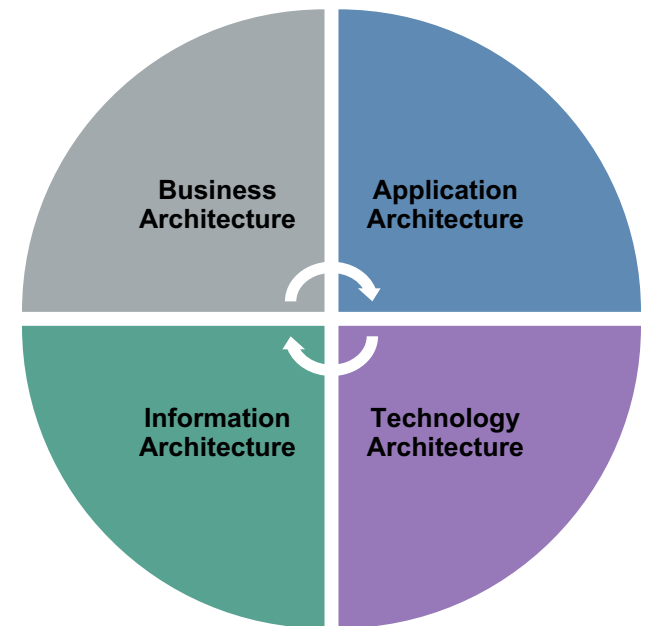
1 Business Alignment

DEFINITION: "We define Alignment among Business, Systems and Information as a way to quantify the coherency level in relation to the business necessity, the systems offer and information management"

Enterprise Architecture: Business and IT Alignment – C. Pereira, P. Sausa - ACM Symposium of Applied Computing

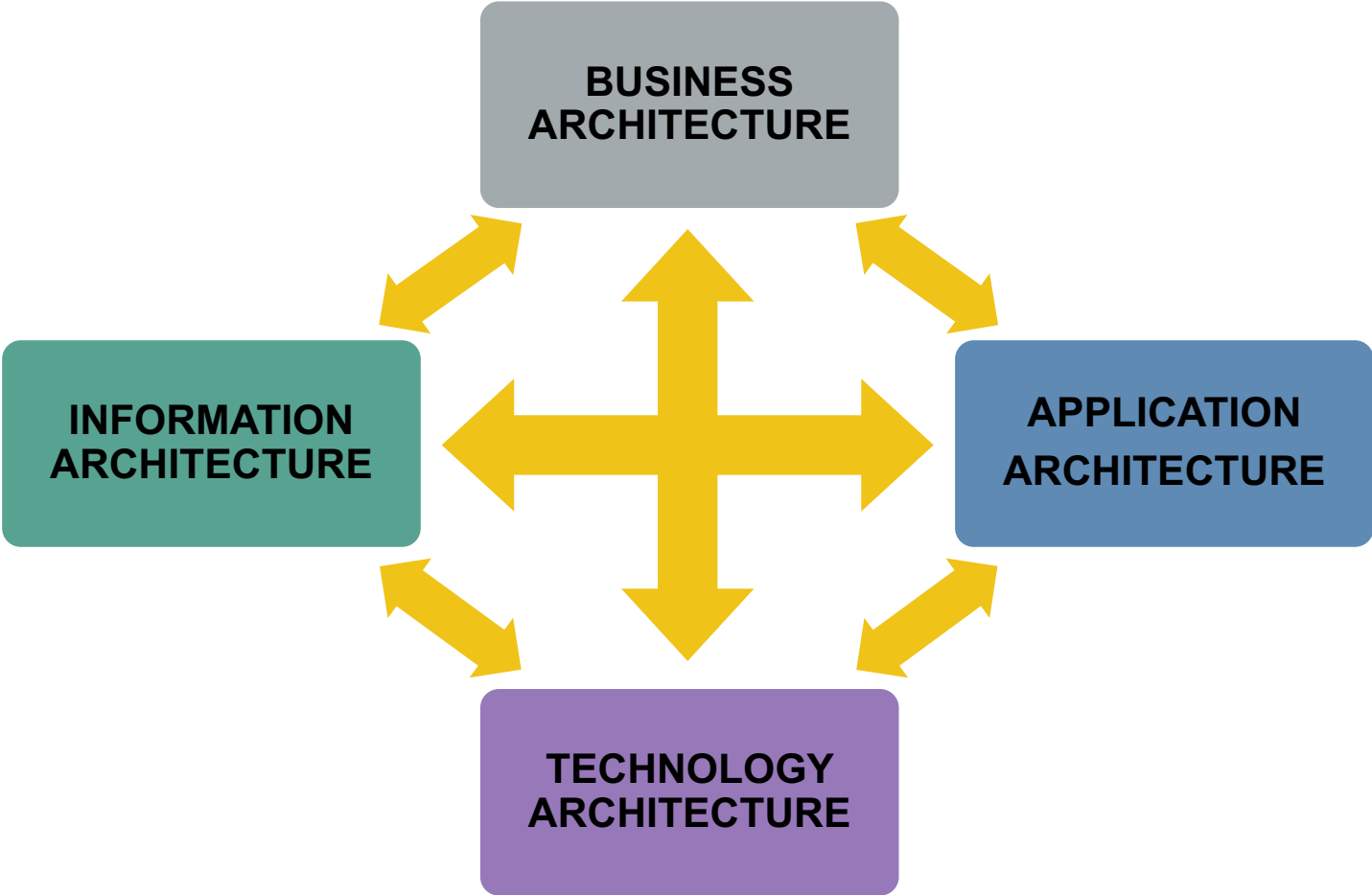
Where do we see these misalignments?

- Business Process and Information
- Business Process and Applications
- Applications and Information
- IT and Information
- Applications and IT

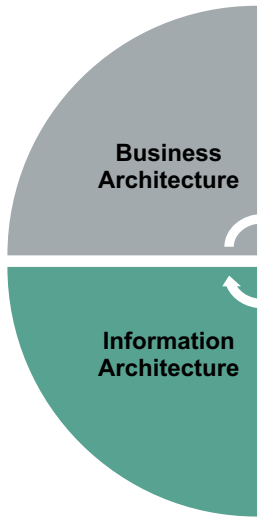


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Business Alignment – Visual Representation



1 Business Alignment - Examples

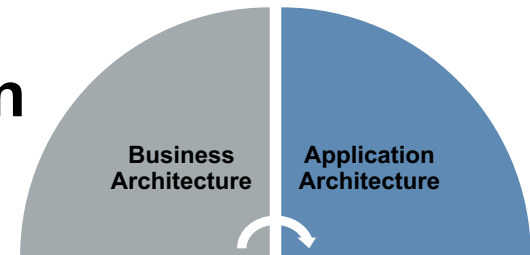


Business Architecture and Information Architecture

- Information entities must have a business definition, description and a set of attributes
- Attributes are related to business processes

1 Business Alignment - Examples

Business Architecture and Application Architecture



- Application properties are classified as availability (up time), scalability (ability to scale up performance), profile based accesses (ability to identify who does each task).

1

Business Alignment Heuristics

- a) Each business process should be supported by the minimum number of applications.
- b) Business activities should be supported by a single application.
- c) Critical business processes should be supported by scalable and highly available applications.
- d) Critical business processes/activities should be supported by different applications than the noncritical business processes/activities.
- e) Each application's functionality should support at least one business process activity. Otherwise, it plays no role in supporting the business.
- f) Information required for critical processes should be also supported by scalable and highly available systems.
- g) Business processes activities requiring on-line/batch support should be supported by applications running on different infrastructures, making easier the tuning of the systems for operating window.

Three Steps to an Enterprise Architecture

- 1** Business Alignment
- 2** Establish a Change Framework
- 3** Communication & Transparency

Establish a Change Framework



2

2 Establish a Change Framework

Change Management?
Or
Change Framework?

Change Framework speaks to
CHANGES TO THE ARCHITECTURE

2 Establish a Change Framework

Change Framework will determine:

- The circumstances under which the enterprise architecture, or parts of it, will be permitted to change after deployment, and the process by which that will happen
- The circumstances under which the architecture development cycle will be initiated again to develop a new architecture



2 Establish a Change Framework

“There are many valid approaches to change management, and various management techniques and methodologies that can be used to manage change; for example, project management methods such as PRINCE2, service management methods such as ITIL, management consultancy methods such as Catalyst, and many others. An enterprise that already has a change management process in place in a field other than architecture (for example, in systems development or project management) may well be able to adapt it for use in relation to architecture.”

Architecture Change Management – ADM - TOGAF® 9.1

2 Establish a Change Framework




- The goal of the change framework is ensure that the EA strategy achieves its original business value. Including managing changes to the EA in a coordinated, strategic manner.
- The change framework will continually monitor:
 - governance requests,
 - changes in technology,
 - changes in the business environment (i.e. growth / decline),
 - capacity and performance
- **CRITICAL** The governance body establish criteria to judge whether a Change Request warrants just an architecture update or whether it warrants starting a new architecture evolution cycle.
- **IMPORTANT** Avoid "creeping elegance", and the governance body must continue to look for changes that relate directly to business value.

2 Establish a Change Framework

Types of Changes

- Simplification Change: A simplification change can normally be handled via change management techniques.
- Incremental Change: An incremental change may be capable of being handled via change management techniques, or it may require partial re-architecting, depending on the nature of the change
- Re-architecting Change: A re-architecting change requires putting the whole architecture through the architecture development cycle again.

Three Steps to an Enterprise Architecture

-  **1** Business Alignment
-  **2** Establish a Change Framework
-  **3** Communication & Transparency

Communication & Transparency



3 Communication & Transparency

COMMUNICATION

**COMMUNICATE,
COMMUNICATE,
COMMUNICATE!**



3 Communication & Transparency

COMMUNICATION

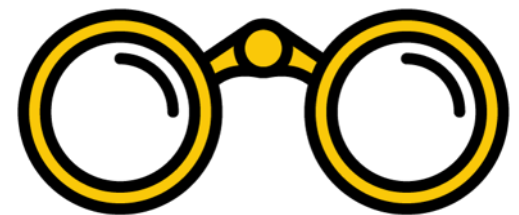
- Organizations often fail to realize the full potential of EA due to a lack of communication.
- Key to communication is to start with “the end” in mind. This is how you manage expectations.
- Meeting with stakeholders to get their “buy-in”. Ask them:
 - What does the EA strategy mean to you?
 - Why are you doing the EA strategy?
 - What are their expectation for the end-result of the EA strategy?



3 Communication & Transparency

TRANSPARENCY

- Transparency is information as a basis for decision making and control.
- Management of business requires transparency and that every implementation of strategy depends on clearly defined goals and access to all relevant information.
- Complete openness creates a trusted strong foundation to build upon.
- EA creates transparency by establishing a foundation for the **identification and control of measures** that enable IT efficiency, effectiveness and reliability.



Case Study #1

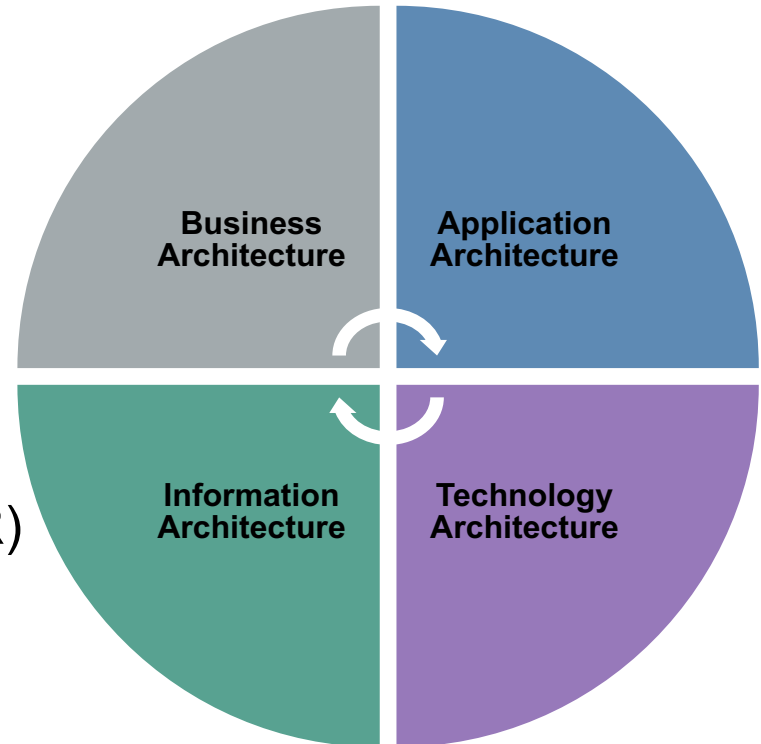
It's not always about the Core

- In the past, a common IT strategy was the single vendor approach
 - Get everything you can from a single vendor to minimize the complexity of integration
 - The core was the master and all other systems were downstream
- Replacing the core was and is all encompassing and limited the Plans ability to address any other business needs
- Today – we use architecture to:
 - Address integration needs across all platforms
 - Build on common a information architecture to ensure data consistency and availability
 - Leverage common technologies to delver efficiencies and minimize complexity

Case Study #1

It's not always about the Core (continued)

- ACA
 - Defined requirements
 - Determined they focused on:
 - Enrollment
 - Financial (billing and AR)



- Layer capabilities around core as opposed to replacing

Case Study #2

The enterprise has landed?

- Today technology is mobile which presents several complications including:
 - Security
 - Connectivity
- We can't just select a "cool" application (app), we need to understand:
 - The business case
 - What technology utilizes and how it fits with our architecture
 - How the data aligns with our information architecture
 - What standards are utilized
 - Integration with other enterprise application
 - Security framework

Case Study #2

The enterprise has landed? (continued)

- Health Risk Assessment
 - Determine requirements including:
 - Data requirements and fit with current HRA
 - Integration from architecture and current HRA application
 - Security
 - Existing mobile devices supported

Case Study #3

Information is the Key

- From our perspective, key to the long-term future of Health Plans is their ability to use information to add value to programs such as:
 - Value-based programs
 - Population health
 - Risk analysis
 - Care Coordination
 - Etc....
- Health Plans have historically under invested in both people and technology to support this need
 - Information Architecture must be defined
 - Governance must be established
 - There is no an end as this is an ongoing journey



Case Study #3

Information is the Key (continued)

- Data model – what is your DNA
 - Logical Model
 - Where reporting occurs at what levels within your architecture
 - What tools in your architecture support reporting
 - Database
 - ETL
 - Tools

IN SUMMARY

1 Business Alignment

- Establish Governance
- Business and IT owning the architecture process
- Business driving the use of technology (Business Architecture)

2 Create a Change Framework

- Maintain Established EA
- Allow for change
- Managing the change

3 Communication and Transparency

- Communicate, communicate, communicate.
- Will only gain buy-in when the rationale behind the decision is understood.





Thank You

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