

<orgname>

Architecture Principles

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Author: <name>
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Introduction

This document introduces the Architecture Principles for the <orgname> Enterprise Architecture.

This document follows the Dragon1 EA Method of working with architecture principles.

This document is generated from a template on the Dragon1 platform and is part of the open EA method Dragon1.

If the data in the Dragon1 account is updated, this document will contain the update information.

1. Strategic Justification of the Architecture Principles

The strategic justification of the proposed architecture principles lies in the strategy, its themes and goals and key stakeholder business & IT requirements.

Working with or implementing architecture principles in the organization takes time and costs budget and resources, but it enables strategy execution greatly. Therefore, we need to align the principles with the strategic themes, goals and key stakeholder requirements.

	Sales (business function)	Service (business function)	Production (business function)	HR (business function)	Research & Development (business function)	Etc....
Strategic Theme 1 – (example) Growth	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1
Strategic Theme 2 – (example) Customer Satisfaction	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1
Strategic Theme 3 – (example) Cost	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1

Strategic Theme 4 – (example) Green	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1
Strategic Theme 5 – (example) Employee satisfaction	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1 ...	Business goal 1 ... Application goal 1... Data goal 1 ... IT goal 1

The above table can be filled with only business goals and or it goals, etc..

Key Stakeholders

Not everyone the company should be able to come up with strategic themes and goals. Only identified and recognized key stakeholders should do this.

Examples of quality key stakeholders are:

- CEO, CFO, CIO, COO, ...
- HR-director, IT director, Logistics Director, Sales Director, ...
- Employees
- Suppliers
- Government
- Important Clients
- Network/Value chain partners.

Each of these key-stakeholders have provided themes and goals (and optionally some additional related business & IT requirements for enterprise wide solutions).

Example table of additional business & It requirements:

	Business (process)	data	application	IT infrastructure	Cybersecurity	Business IT Solutions
Stakeholders	Requirement Requirement		Requirement			
CIO						
IT Manager	Requirement			Requirement		
Customer A			Requirement			
Partner B						
Government K		Requirement			Requirement	

2. Impact of the Architecture Principles

The impact of the Architecture Principles lies in the fact that it will provide design patterns, design guidelines and standards for design regarding products, business processes, data streams/flows, software applications, IT infrastructures and (integral) business & IT-solutions/projects.

Principles are about the way a concept works. Principles are converted into guidelines so they can be applied in design activities.

It is very important that architecture principles are approved by the CIO so they can enter policy document and have effect as patterns, guidelines and standards.

3. List of Architecture Principles

What are principles?

Principles are the way concepts works. A concept is an approach or way of working and an abstraction of an implementation.

Example of concepts (in the context of enterprise architecture and transformation are) “Standardization”, “ReUse”, “Self Service”, “Data Governance” and “Virtualization” are all concepts.

Each of these concepts have their way of working and the result they produce. This is what we call the principle of the concept.

The Principle of Reuse for example is “**By** using solutions and parts of solutions **it is ensured that** average costs are lowered, complexity is maintained and **with that** risks are mitigated and/or managed.”.

Concepts are created by the industries. Concept are much alike capabilities and technologies.

What are architecture principles?

Architecture is a coherent set of concepts and principles. Architecture principles are principles that are made part of the architecture of an organization.

The architecture principles matrix

It is common to have 10 principles in each cell of the matrix below, in the end.

	Overall	Sales (business function)	Service (business function)	Production (business function)	HR (business function)	Research & Development (business function)	Etc....
Enterprise Architecture							
Business Architecture	-Principle of Managed Quality -Principle of Managed Maintenance -Principle of Managed Changes -Principle of High Availability						
Data Architecture							
IT Infrastructure Architecture	-Principle of IT-Governance -Principle of Patch Management -Principle of High Scalability -Principle of Disaster Recovery						
Security Architecture	-Principle of Zero Trust Security -Principle of Secure Data Sharing						

In the table below you see the link of the principles with the strategic goals.

Strategic Goal	Architecture Principle
Theme 1 /Goal 1	Principle of Managed Quality
Theme 1 /Goal 1	Principle of Managed Maintenance
Theme 1 /Goal 1	Principle of Managed Changes
Theme 1 /Goal 3	Principle of High Availability
Theme 4 /Goal 1	Principle of IT-Governance
Theme 1 /Goal 2	Principle of Patch Management
Theme 1 /Goal 1	Principle of High Scalability
Theme 7 /Goal 4	Principle of Disaster Recovery
Theme 1 /Goal 1	Principle of Zero Trust Security
Theme 8 /Goal 7	Principle of Secure Data Sharing

4. Architecture Principles Detailed

4.1 Principle of IT-Governance

Concept definition

IT-Governance concept is defined as a formal framework that provides a structure for organizations to ensure that IT investments support business objectives. IT governance is an integral part of overall enterprise governance. GRC and IT Governance are almost the same thing.

Literature reference for this concept and principle: Gramm–Leach–Bliley Act (GLBA) and the Sarbanes–Oxley Act

This concept and principle are linked to strategic themes and goals:

- Theme 1, Goal 1, Business Function 3
- Theme 3, Goal 5, Business Function 2

The first principle of the IT-Governance concept is:

By implementing a formal IT governance program that provides a framework of best practices and controls **it is ensured** the organization meets internal and external requirements and **with that ...**

IT Governance also has some (derived) principles. These are:

- IT Governance Principle 1: By aligning IT services with Business services,
- IT Governance Principle 2: By identifying and managing risks
- IT Governance Principle 3: By making accountability and responsibility explicit for roles..
- ...
- ...

Design Guidelines for this principle:

- It is advised to use the COBIT or COSO standard for implementing IT governance

- It is advised to get employees trained in these standards.
- It is advised to review and align all policies/documents with these standards.
- Create a list of risks to be managed and identified and implement controls to manage and mitigate them
- Create a list of roles and responsibilities to be managed and implement them.
- ...

4.2 Principle of ...

4.3 Principle of ...

4.4 Principle of ...

5. How To Avoid Common Mistakes Made with Principles

Other frameworks than Dragon1 define principles as general rules or guidelines, but that is a mistake. Also the principles are often not made official by the CIO and are not entered into policies.

In order to have architecture principles that make impact, you need to separate them from design guidelines and you need to make them official by CIO approval.