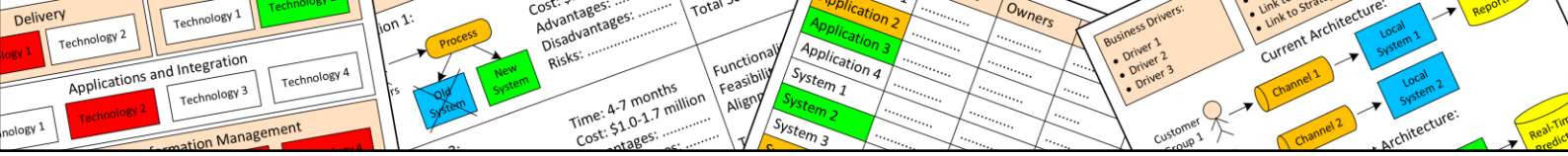

Enterprise Architecture Artifacts: Facts and Decisions

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Introduction

Enterprise architecture (EA) for all practical purposes can be considered as a collection of special documents typically called as EA artifacts. These EA artifacts provide various views of an organization from the perspective of its business and IT. But what is the meaning of EA artifacts? Why are EA artifacts created?

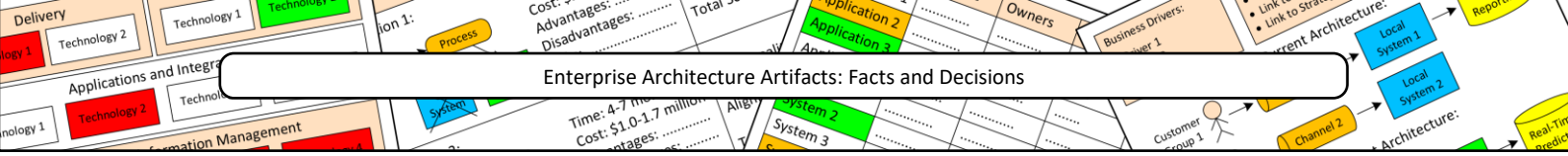
Obviously, the purpose of EA artifacts cannot be purely descriptive since organizations do not benefit from creating descriptions for the sake of descriptions. However, all widely known EA methodologies[1, 2, 3], in fact, advocate doing exactly that – developing heaps of EA artifacts with unclear goals in mind. For instance, the so-promoted "proven EA methodology" TOGAF provides a comprehensive list of EA artifacts and describes in great detail the sequence in which they should be developed, but barely explains for what sake they are created. At the same time, it should not be surprising since all these EA methodologies originate from the works of consultants, who cared primarily about getting their paychecks for developing architectures, but rarely about the destiny of these architectures after they left their clients[4]. Unfortunately, organizations guided by consultants' "best practices" already wasted billions of dollars on creating aimless architectural descriptions of little or no business value[5].

Instead, the real purpose of EA artifacts is always manifested in their usage. Specifically, my analysis of EA artifacts in multiple organizations suggests that from the perspective of their highest-level meaning all artifacts can be classified into facts EA artifacts and decisions EA artifacts. These two groups are handled very differently by architects and have fundamentally different purposes in the context of an EA practice.

Facts EA Artifacts

Facts EA artifacts represent documented objective facts. In other words, they reflect the actual situation in an organization as it is. For example, facts EA artifacts may describe the structure of the existing IT landscape, list available IT assets and explain the connections between them. These EA artifacts always focus on the current state and have no implications for the future.

Facts EA artifacts are "simple" artifacts. They can be created or updated by sole architects alone or with only a minimal involvement of other actors. For example, an individual architect can go and document a particular area of the IT landscape if it is not yet documented. Or, after a new system is placed in the IT landscape, an architect can add this system to the corporate asset inventory and update corresponding landscape diagrams. Since



these EA artifacts merely document some objective facts independent of specific people and their opinions, their development or modification does not imply much debate or politics.

However, the role of facts EA artifacts in an EA practice is purely supporting. Although these EA artifacts help capture, store and leverage knowledge on the current state of affairs valuable for planning purposes, they still provide only "static" reference materials and do not imply any real planning per se. For example, architects can use the existing asset inventory and landscape diagrams during the planning of new IT initiatives and solutions to identify the most preferable implementation options. Therefore, the value of facts EA artifacts is realized after their development, while their most critical success factor is the accuracy and up-to-dateness of their descriptions.

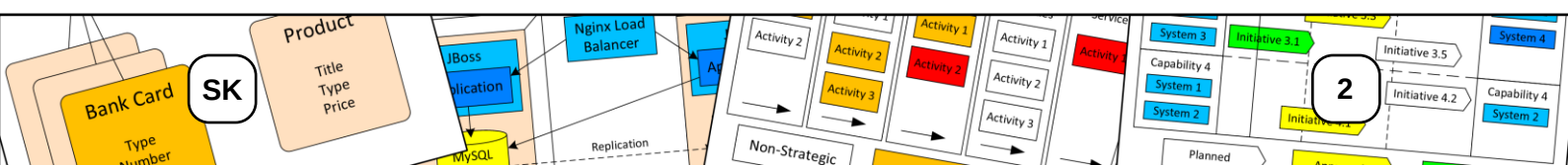
Decisions EA Artifacts

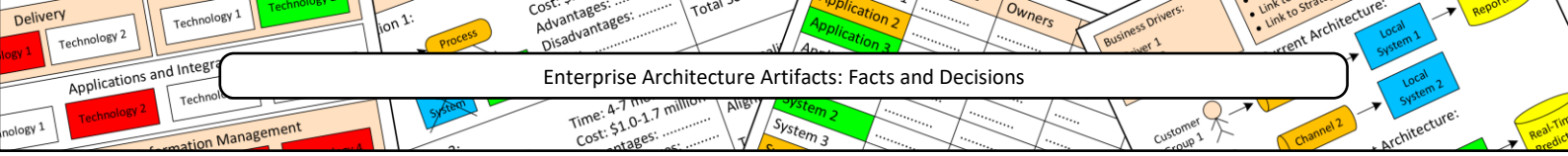
Decisions EA artifacts represent made planning decisions. In other words, they capture achieved agreements regarding the desirable future course of action. For example, decisions EA artifacts may describe architectures of proposed IT solutions, organization-wide target states or recommended technology standards. These EA artifacts either explicitly describe the future state, e.g. solution designs, or at least have some articulate implications for the future, e.g. architecture principles.

Decisions EA artifacts are "complex" artifacts. They cannot be created and updated by individual architects, but always require collective efforts with the involvement of all relevant stakeholders of these EA artifacts. Essentially, architects serve only as facilitators, rather than real developers of decisions EA artifacts. For example, an architect cannot develop an investment roadmap for a business unit alone. Instead, an architect should meet with all business unit executives, discuss their business objectives and needs, recommend the best possible response from IT, reach an agreement with the business leaders on the desirable future IT investments and then document these agreements in the roadmap. Similarly, an architect cannot "re-heatmap" the business capability model alone, but only as part of the strategic dialog with C-level business executives. Unlike "routine" facts EA artifacts, the development of decisions EA artifacts is a very tricky, highly creative and politicized process which requires an intensive dialog and negotiations between their stakeholders. These EA artifacts are subjective in nature, i.e. their contents are wholly determined by the personal opinions and concerns of their creators.

Decisions EA artifacts fulfill the primary role in an EA practice. They provide instruments for communication and decision-making which help make optimal planning decisions taking into account the key interests of all involved parties. Essentially, the development process of decisions EA artifacts is the actual planning. After being developed and endorsed by their stakeholders (and in most cases also formally signed-off by an authorized governance committee, e.g. an investment board), these EA artifacts define future activities and "oblige" all the stakeholders to act according to the planning decisions reflected in them. For example, the approved business capability heatmap requires prioritizing proposed IT initiatives based on their contribution to strategic capabilities, while a developed investment roadmap implies aligning future IT projects with the agreed long-term investment strategy.

Unlike facts EA artifacts, the value of decisions EA artifacts is realized mostly during their development. The collaborative development process of decisions EA artifacts arguably constitutes the core of an EA practice since it is this very process that enables effective communication between business and IT and eventually leads to the mutual alignment of business and IT plans. The single most critical success factor for decisions EA artifacts – and





it is even not just a “factor”, but the very essence of these artifacts – is the timely involvement and active participation of all relevant stakeholders in the process of their development.

Why Is This Distinction So Important?

The profound distinction between facts EA artifacts and decisions EA artifacts has numerous implications for an EA practice. Besides significantly different development processes, purposes and critical success factors described above, facts and decisions EA artifacts also have a number of other more subtle differences affecting their informational contents, presentation formats and even their physical storage. For instance, contents and formats of facts EA artifacts are intended primarily for the convenience of their future users, e.g. searchability and comprehensiveness, while for decisions EA artifacts they are intended largely for their developers, e.g. support of collaboration and decision-making. Similarly, facts EA artifacts can be physically stored in sophisticated EA-specific tool-based document repositories facilitating easier access, navigation and analysis of information, whereas decisions EA artifacts are more often stored in “lighter” formats enabling simpler distribution, wider sharing and collective editing of these artifacts, e.g. as plain MS Word, Visio and PowerPoint files or in wiki-based collaboration platforms.

However, arguably the single most important lesson from this distinction is the following one: unlike the current state, which can be simply documented and maintained within the architecture function, all the attempts to define the desired future state, be it a set of required business capabilities or a target technology portfolio, must involve all the stakeholders of this future state. Unfortunately, this lesson was “paid” by numerous expensive failures of EA initiatives having both internal and external origin.

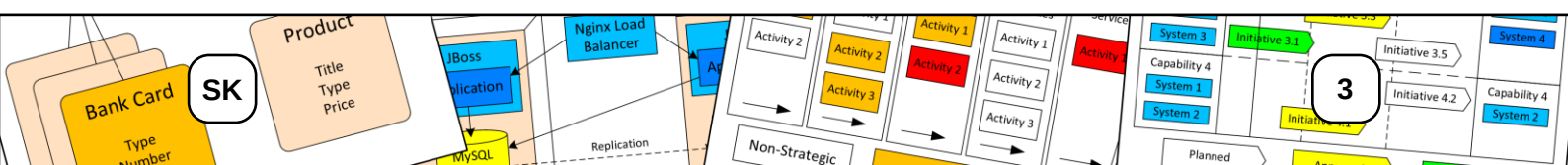
On the one hand, internal failures are often caused by inexperienced architects trying to define idealistic future states via interviewing some business representatives and then creating decisions EA artifacts on their behalf. Any future plans developed in this manner, i.e. in a way similar to facts EA artifacts, are naturally ignored, shelved and never acted upon, while organizations get disappointed in architects and architecture.

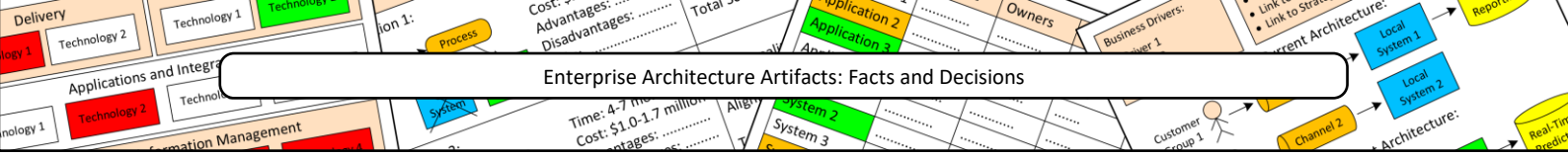
On the other hand, external failures are caused by EA consultancies trying to develop architectures for client organizations without their real involvement, i.e. by means of studying their business strategies, objectives and processes and then producing comprehensive architectures for them. “Gartner has observed [...] clients who have derailed the EA effort (and any subsequent attempts) through improper use of consultants. This usually happens when the client engages a consultant to do the architecture “to them” rather than “with them”. Without the active participation of the client in the EA effort, the critical link to the business is lost”[6, page 3].

Generally, important planning decisions cannot be made by some people on behalf of other people. Only decisions developed collaboratively by all parties together may be considered as actual planning, whereas all the decisions made by lone architects without an adequate stakeholder engagement can be considered only as deceptive “wishful thinking”.

Facts, Decisions and the CSVLOD Model

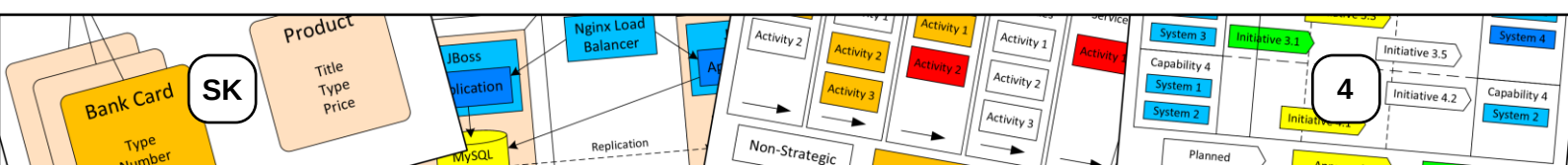
Previously I reported that all EA artifacts used in established EA practices can be classified into one of the six general types, Considerations, Standards, Visions, Landscapes, Outlines and Designs (CSVLOD), accurately defining their practical roles[7, 8, 9]. These six general types of EA artifacts also have rather obvious interpretations from the perspective of facts and decisions helping better understand their general meaning in an EA practice.





Specifically, Considerations represent decisions on how an organization needs to work from the IT perspective. Standards represent decisions on how all IT systems should be implemented and some facts on the current approaches and technologies. Visions represent decisions on what IT should deliver to an organization in the long run. Landscapes represent facts on the current IT landscape and some decisions on its future evolution. Outlines represent decisions on how approximately specific IT initiatives should be implemented. Finally, Designs represent decisions on how exactly specific IT projects should be implemented.

Importantly, of all types of EA artifacts only most Landscapes and some Standards are facts EA artifacts, while all other artifacts represent planning decisions and, therefore, must be always developed collaboratively. Due to the critical importance of distinguishing facts EA artifacts from decisions EA artifacts I have added the respective properties to the newly updated "Enterprise Architecture on a Page" (v1.3, see http://eaonapage.com/Enterprise%20Architecture%20on%20a%20Page%20(v1.3).pdf)[10]. The comparison of facts and decisions EA artifacts provided above is briefly summarized in Figure 1.



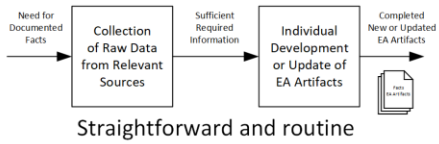
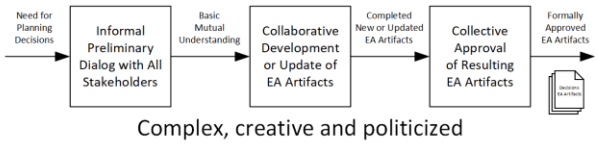
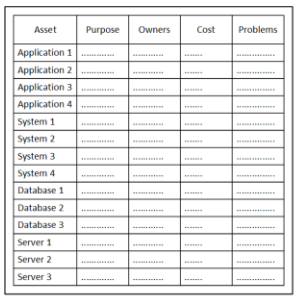
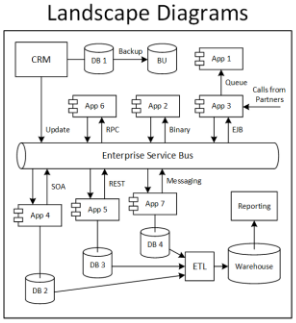
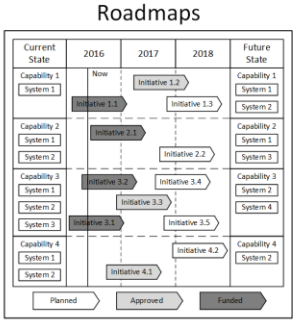
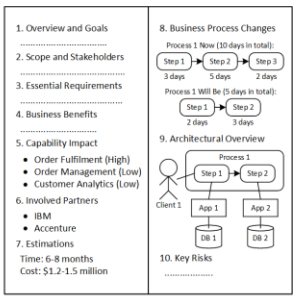
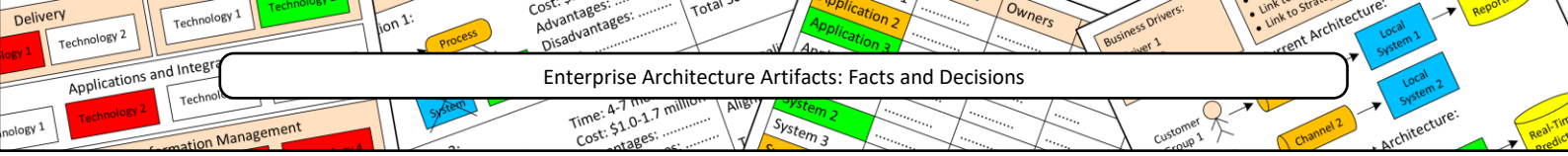
Facts EA Artifacts	Decisions EA Artifacts
Represent: Documented objective facts	**Represent:** Made planning decisions
State: Only the current state	**State:** Either the future state or stateless
Implications: Have no implications for the future	**Implications:** Always have implications for the future
Nature: Objective, i.e. based on acknowledged facts and independent of specific people	**Nature:** Subjective, i.e. based on the interests and opinions of specific people
Developed: By individual architects alone	**Developed:** Collaboratively by all stakeholders
Architects: Act as sole developers	**Architects:** Act as drivers and facilitators
Development Process:  Straightforward and routine	**Development Process:**  Complex, creative and politicized
Format: Optimized for long-term storage, searchability and analysis of information	**Format:** Optimized for effective teamwork, ease of editing and distribution
Exemplary EA Artifacts: Inventories  Landscape Diagrams 	**Exemplary EA Artifacts:** Roadmaps  Solution Overviews 
CSVLOD: Most Landscapes and some Standards	**CSVLOD:** All other types of EA artifacts
Role: Supporting, i.e. provide the information base required for developing decisions EA artifacts	**Role:** Primary, i.e. provide instruments for communication, decision-making and planning
Purpose: Help store the facts important for IT planning	**Purpose:** Help make optimal planning decisions
Outcome: Useful reference materials are available	**Outcome:** Stakeholders implement made decisions
Value: Realized after development is completed	**Value:** Realized during the development process
Priority: Product over process	**Priority:** Process over product
Success Factor: Accuracy and up-to-dateness of all data	**Success Factor:** Active involvement of all stakeholders

Figure 1. Facts EA Artifacts and Decisions EA Artifacts

Interestingly, some EA artifacts can combine the features of both facts and decisions. For example, technology reference models can show all the technologies currently used in an organization (facts) as well as the future plans regarding each of these technologies, e.g. invest, maintain or retire (decisions). Likewise, in some other EA artifacts their primary objects of description, e.g. systems or IT assets, represent merely documented facts, while the color-coding of these objects reflects made planning decisions regarding their future. SK



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