What is an Architecture Roadmap?

by Roger Evernden

OK – I know this is a bit of an obvious question. A roadmap is clearly a way from getting from one architecture state to another – a way of plotting the route from current architectures to target ones. But that doesn’t stop architects asking the question: what is an architecture roadmap? It’s a question that I frequently get from clients. What they are really asking is: what are the best ways to analyze, define and document an architecture roadmap?

In TOGAF the purpose of an architecture roadmap is:

“The Architecture Roadmap lists individual work packages that will realize the Target Architecture and lays them out on a timeline to show progression from the Baseline Architecture to the Target Architecture. The Architecture Roadmap highlights individual work packages’ business value at each stage. Transition Architectures necessary to effectively realize the Target Architecture are identified as intermediate steps. The Architecture Roadmap is incrementally developed throughout Phases E and F, and informed by readily identifiable roadmap components from Phase B, C, and D within the ADM.”

Section 36.2.7

TOGAF also describes the typical contents of a roadmap – which gives more of a clue about what is included in one, and what it looks like. TOGAF lists five content topics:

1. Work package portfolio: this is a detailed list of all of the work packages needed to deliver or realize the architectural requirements.

2. Implementation Factor Assessment and Deduction matrix: this is the technique recommended by TOGAF for analyzing the risks, issues, assumptions, and dependencies behind the proposed changes.

3. Consolidated Gaps, Solutions, and Dependencies matrix: this is the other major technique from TOGAF for creating a consolidated roadmap: for each of the four architecture domains it shows the gaps, potential solutions, and dependencies.

4. Any Transition Architectures: these are intermediate states needed whenever there is a major architectural change. Again – TOGAF doesn’t give much in the way of guidance on exactly how these are identified or what they should contain.

5. Finally, implementation recommendations provide criteria for measuring projects, risks and issues, and a list of the required Solution Building Blocks (SBBs).

100’S of FREE Downloads Available!

Posters, Whitepapers, Case Studies, Videos, Quizzes, Articles

Download Now!
But that’s about all you get from TOGAF: the purpose of a roadmap and some typical contents in Phases B, C, and D. You will also find a step to “Define Candidate Roadmap Components” (which gives very little guidance on how to actually do it). In Phase E, there are more detailed steps like “Validate and Consolidate Target Architecture Models” (which gives even less guidance on how to actually do this) and “Create the Architecture Roadmap and Implementation and Migration Plan” – which again don’t go into enough detail to explain how this is done. Hence the question: what is an architecture roadmap?

So here are some of the things that I use with clients to help explain the bits that TOGAF doesn’t cover:

- Most importantly, remember to think as an architect! This means describing how and why the current architecture constrains the strategic needs and capabilities of your organization. And it means defining future options that show how target architectures enable the required strategies and capabilities, or how they address the concerns of stakeholders. This requires an explicit description that helps stakeholders to understand how the architecture constrains or enables their needs.

- The best way that I know to record this information is through a high-level enterprise pattern, which shows the most relevant components, how they are organized, and how they interact. There should be an enterprise pattern for the current state, for any alternative target states, and for any intermediate transition states. For example, the current enterprise pattern might describe a “Disconnected Channel Architecture”, while the target pattern is for an “Integrated Multi-Channel Architecture”.

- For each enterprise pattern it should be possible to drill-down to lower levels of detail. The Integrated Multi-Channel Architecture might have a drill down to relevant channel-related business processes, which might drill down to relevant applications, data sources, and multi-media libraries.

The ADM implies that roadmap components for each of the four domains are developed independently from each other (Phases B, C, and D), and only consolidated in Phase E. In practice, most EA teams that I work with will be developing an integrated enterprise-pattern based roadmap throughout these phases, to show how the proposed changes fit into the overall evolution of the architecture.

A key role for the EA team is to examine alternatives and to help decision makers decide which path to take. So it’s vital to explore these options, and the best way to do this is to show alternative roadmaps mapped to a common timeline. This makes it easy to see how the proposed changes differ, and to decide whether the roadmap you are developing is a single path leading to a single target state, or whether there are separate trails leading to different target states.

- One final suggestion is that each state, or enterprise pattern, should include information about its costs, risks, and benefits – to help decision makers choose one option over another.

So what is an architecture roadmap? Well the main thing that distinguishes this type of roadmap from any other is that it highlights architectural constraints, enablers, and options. TOGAF doesn’t emphasize this point enough! Keep asking whether the roadmap you are producing explicitly shows how each state in the evolution of the architecture constrains or enables the needs of the enterprise, and you will end up with good architecture roadmap.