How to present architecture issues to higher management

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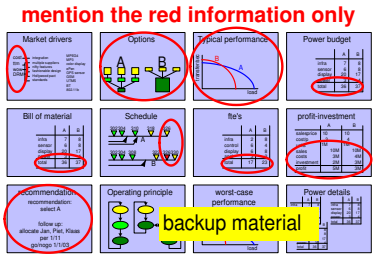

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Abstract

Architects struggle with their visibility at higher management echelons. The introvert nature of architects is a severe handicap. Participation of architects in management teams is important for balanced technical sound decisions and strategy. Improved managerial communication skills of architects are required.
This article describes how to give a more effective presentation to higher management teams. Subjects discussed are the preparation, content and form, do and don't advise.

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1 Introduction

The architect bridges the technology world with the other business related worlds, by understanding these other worlds and by having ample know-how of technologies. Management teams are responsible for the overall business performance, which in the end is expressed in financial results.

Many architects and management teams are captured in a vicious circle:

- architects complain about management decisions and lack of know-how of managers
- managers complain about lack of input data and invisible architects

One way to break this vicious circle is to improve the managerial communication skills of architects. We address a frequently needed skill: presenting an architecture issue to a management team.

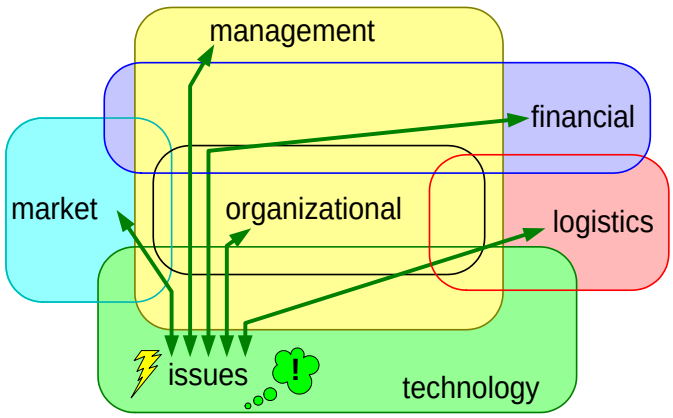

Figure 1: Architectural issues related to managerial viewpoints

The architect should contribute to the managerial decision process by communicating technology options and consequences of technological decisions. Figure 1 shows a number of the relevant, somewhat overlapping, viewpoints. The figure indicates what links architects should communicate to management teams.

Architects must have a good understanding of their target audience. Figure 2 characterizes the managers in management teams. Their main job is to run a healthy business, which explains many of these characterizations: *action oriented*, *solution rather than problem*, *impatient, busy*, *bottom-line oriented:* profit, return on investment, market share, et cetera, and *want facts not believes*. These managers operate with many people all with their own personal interests. This means that managers *operate in a political context* (something which architects like to ignore).

Some characteristics of management teams depend on the company culture. For example, the amount of technology know-how can vary from extensive to

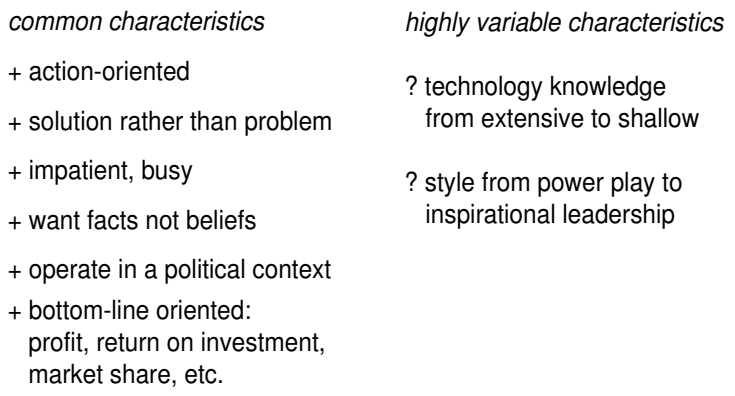

Figure 2: Characteristics of managers in higher management teams

shallow. Or, for example, the management style can vary from power play to inspirational leadership.

2 Preparation

Presentations to higher management teams must always be prepared with multiple people: a small preparation team. The combined insights of the preparation team enlarge the coverage of important issues, both technical as well as business. the combined understanding of the target audience is also quite valuable. Figure 3 shows how to prepare the content of the presentation as well as how to prepare for the audience.

The content of the presentation must be clear, address the main issues, and convey the message, see also 3. The message must have substance for managers, which means that it should be *fact based*. The first steps are *gathering facts* and *performing analysis*. Based on these facts the *goal* and *message* of the presentation must be articulated. All this information must be combined in a *presentation*. When the presentation content is satisfactory the form must be polished (templates, colors, readability, et cetera). Although this has been described as a sequential process, the normal incremental spiral approach should be followed, going through these steps in 2-3 passes.

The members of management teams operate normally in a highly political context, mutually as well as with people in their context. This politics interferes significantly with the decision making. The political situation should be mapped by the preparation team, the political forces must be identified and understood. This is done by *analyzing the audience*, their *background* and their *interests*. The preparation team can gain a lot of insight by discussing the *expected responses* of the management team. At some moment the preparation team can *simulate* (role-play)

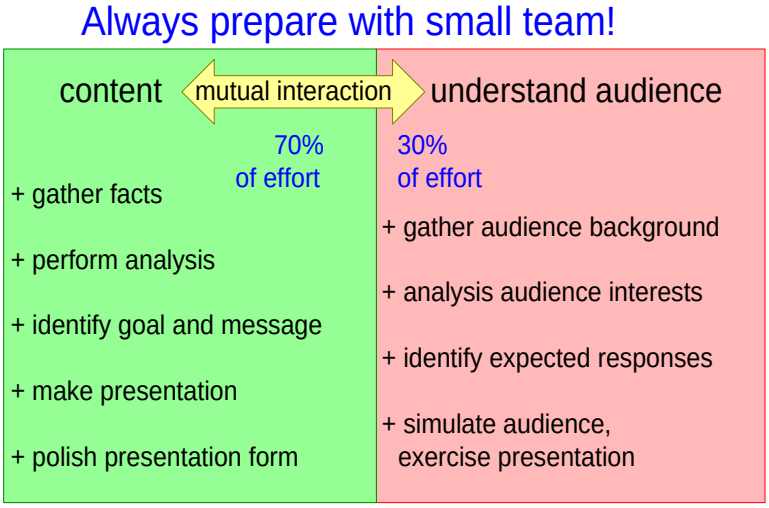

Figure 3: How to prepare

the management team in a proof-run of the presentation. The understanding of the audience must be used to select and structure the content part of the presentation. This activity should be time-multiplexed with the content preparation; 70% of the time working on content, 30% of the time for reflection and understanding of the audience.

3 The presentation material

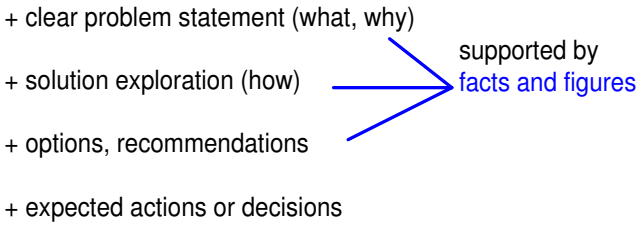

Figure 4: Recommended content

Figure 4 provides guidelines for the contents of the presentation. A clear *problem statement* and an *exploration of solution(s)* should address the technical issues as well as the translation to the business consequences. Normally a range of options are *provided* The options are *compared* and *recommendations* are provided. Note that options that are unfavorable from architectural point of view are nevertheless options. It is the challenge for the architect to articulate why these options

are bad and should not be chosen. Architect enable and streamline the decision making by providing clear recommendations and by indicating what *actions* or *decisions* are required.

All content of the presentation should be to the point, *factual* and *quantified*. Quantified does not mean certain, often quite the opposite, future numbers are estimates based on many assumptions. The reliability of the information should be evident in the presentation. Many facts can be derived from the past. *Figures* from the past are useful to "calibrate" future options. Deviations from trends in the past are suspect and should be explained.

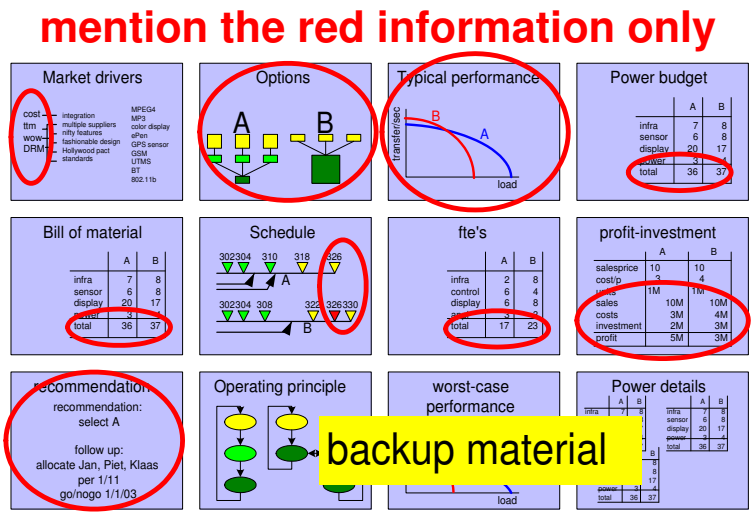

Figure 5: Mentioned info, shown info and backup info

The presentation material should cover more than is actually being presented during the presentation itself. Some supporting data should be present on the sheets, without mentioning the data explicitly during the presentation. This allows the audience to assess the validity of the presented numbers, without the need to zoom in on all the details.

It is also useful to have additional backup material available with more in depth supporting data. This can be used to answer questions or to focus the discussion: speculation can be prevented by providing actual data.

The use of demonstrators and the show of artifacts (components, mock-ups) makes the presentation more lively. The demonstrations should be short and attractive (from customer point of view), while illustrating the value and technological possibilities and issues.

Architects prefer to focus on the content, form is supportive to transfer the content. However architects should be aware that managers can be distracted by the form of a presentation, potentially spoiling the entire meeting by small issues.

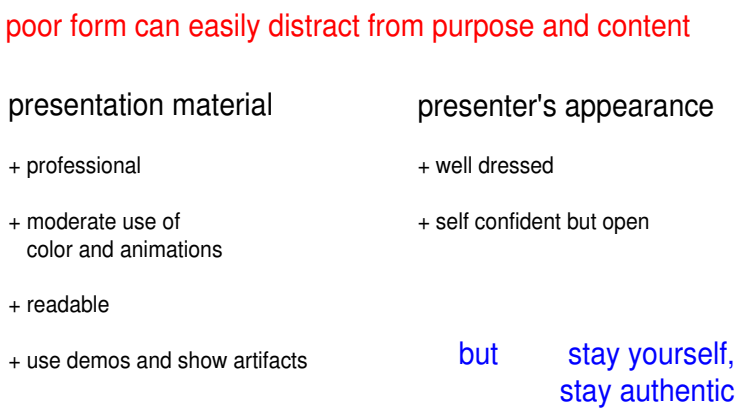

Figure 6: Form is important

Figure 6 gives a number of recommendations with respect to the form of the presentation and the appearance of the presenter.

The presentation material (slides, demonstrators, video, drawings, et cetera) has to look professional. Slides will use color and other presentation features. However, moderation in the use of colors, animations and other presentation features is recommended; an overload of these colors and features does not look professional and will distract the audience from the actual content. Information on the slides has to be readable: use large enough fonts and use sufficient contrast with the background. Pay special attention to quality and readability, when copy-pasting information from other sources. Sometimes it is better to recreate a high quality table or graph than to save effort by copy-pasting an unreadable table or graph.

The appearance of the presenter can also make or break the presentation. The presenter should give sufficient attention to clothes and overall appearance. Don't exaggerate this, you should stay yourself and still be authentic. Other people immediately sense it when the appearance is too exaggerated, which is also damaging for your image.

4 The Presentation

Figures 7 and 8 show in the *don't* column a number of pitfalls for an architect when presenting to higher management teams. The preferred interaction pattern is given in the *do* column.

The pitfalls in Figure 7, *preaching believes*, *underestimating know-how of managers*, and *telling managers what they did wrong*, are caused by insufficient understanding of the target audience. In these cases the opinion of the architect is too dominant, opinions work counterproductive. *Overselling* creates a problem for the future:

do not	*do*
- preach beliefs	+ quantify, show figures and facts
- underestimate technology knowledge of managers	+ create faith in your knowledge
- tell them what they did wrong	+ focus on objectives
- oversell	+ manage expectations

Figure 7: Don't force your opinion, understand the audience

expectations are created that can not be met. The consequence of overselling is loss of credibility and potentially lack of support in tougher times. Architects must *manage* the *expectations* of the audience.

When presenting the architect tries to achieve multiple objectives:

- Create awareness of the problem and potential solutions by *quantification* and by *showing figures and facts*.
- Show architecting competence in these areas, with the message being: "you, the manager, can delegate the technical responsibility to me". This creates *faith* in the *architect's know-how*.
- Facilitate decision making by translating the problem and solution(s) in business consequences, with the *focus on objectives*.

This means that sufficient technological content need to be shown, at least to create faith in the architect's competence. Underestimation of the managerial know-how is arrogant, but mostly very dangerous. Some managers have a significant historic know-how, which enable them to assess strengths and weaknesses quickly. Providing sufficient depth to this type of manager is rewarding. The less informed manager does not need to fully understand the technical part, but at least should get the feeling that he or she understands the issues.

The impatience and action orientation of managers makes them very dominant, with the risk that they take over the meeting or presentation. Figure 8 shows a number of these risks and the possible counter measures:

Managers hijacking the meeting can be prevented by maintaining the lead as presenter.

Build up tensions by withholding facts or solutions, but be to the point and direct. For example, it can be wise to start with a summary of the main facts and conclusions, so that the audience know where the presentation is heading.

do not	*do*
- let one of the managers hijack the meeting	+ maintain the lead
- build up tensions by withholding facts or solutions	+ be to the point and direct
- be lost or panic at unexpected inputs or alternatives	+ acknowledge input, indicate consequences (facts based)

Figure 8: How to cope with managerial dominance

Be lost or panic at unexpected inputs or alternatives. Most managers are fast and have a broad perspective that helps them to come with unforeseen options. Acknowledge inputs and indicate the consequences of alternatives as far as you can see them (fact based!).

An example of an unexpected input might be to outsource a proposed development to a low-cost country. The outsourcing of developments of core components might require lots of communication and traveling, creating costs. Such consequence has to be put on the table, but refrain from concluding that it is (im)possible.

5 Exercise

The SARCH course [1] on System Architecting contains an exercise, where the participants can apply then lessons learned by giving a presentation to a (simulated) management team. The presenter gives his presentation for the participants and the teacher, who play the role of this higher management team.

+ Bring a clear architecture message to

+ a Management team at least 2 hierarchical levels higher

+ with 10 minutes for presentation including discussion
(no limitation on number of slides)

* architecture message =
technology options in relation with market/product

* address the concerns of the management stakeholders :
translation required from technology issues into
business consequences (months, fte's, turnover, profit, investments)

Figure 9: Exercise presentation to higher management

Figure 9 shows the description of this exercise. The group of participants is divided in 4 teams of about 4 people, preferably from the same domain. These teams have somewhat less than 2 hours for the preparation of the presentation. The exercise is explained to them several days before and the teams are also formed days before. This enables the team to determine a subject and message in a background process, during lunch and in the breaks. Determining the subject and message requires quite some elapsed time. It is highly recommended to take a subject from *real-life*: "What you always wanted to tell topmanagement".

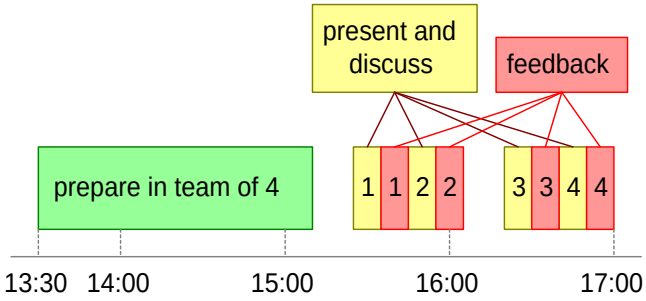

Figure 10: Schedule of the presentation exercise

Figure 10 shows the schedule of the exercise. Every presentation is 10 minutes sharp, **including** the interaction with the management team. Directly after the presentation feedback is given by the participants as well as by the teacher. This feedback should follow the normal feedback guidelines: mentioning the strong points, before discussing the options for improvement. The teacher must ensure that sufficient feedback is given, the material in this exercise can be used as guideline.

The limited preparation time implies that the result will also be limited. The form will be limited (handwritten flipovers) and most of the historical data will be made up.

The teacher should stimulate the complete group to really participate in the role play, it can also be a lot of fun.

References

[1] Gerrit Muller. CTT course SARCH. `http://www.gaudisite.nl/SARCHcoursePaper.pdf`, 1999.

[2] Gerrit Muller. The system architecture homepage. `http://www.gaudisite.nl/index.html`, 1999.

History

Version: 0.1, date: August 17, 2010 changed by: Gerrit Muller

- textual updates
- changed status to concept

Version: 0, date: October 30, 2002 changed by: Gerrit Muller

- Created, no changelog yet