



Why Good Architects Act as Chameleons

SATURN 2011 Presentation

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Architecting does not lead to architecture

What we do:

```

graph TD
    vision([vision]) --> requirements([requirements])
    requirements --> design([design])
    design --> evaluate([evaluate])
    evaluate -- "not ok yet..." --> requirements
    evaluate -- "good enough!" --> so_now([so... now what?])
    
```

What we produce:

In short, we produce:

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Architecture is embodied in a system...

...the map is not the territory

to change the architecture,
we must change the system

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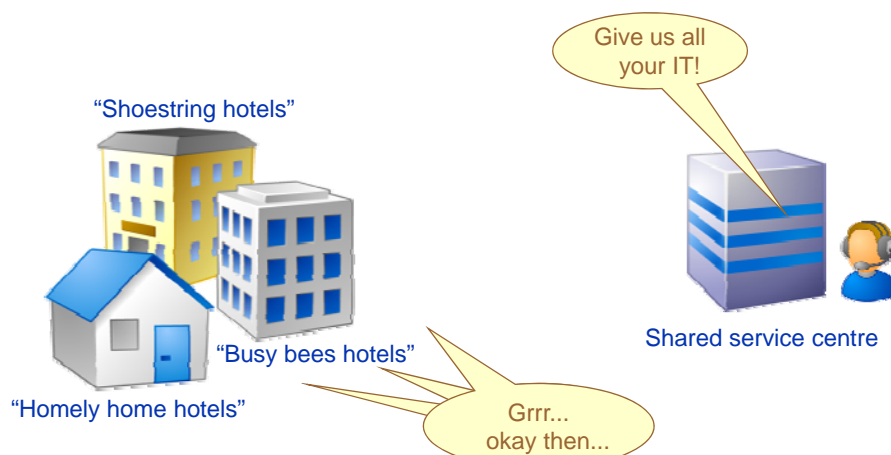
The architect's paradox...

- To change the architecture, we must change the system itself

- For simple systems or smaller organizations: architecting and developing can be done by the same people
 - No need for an 'architect' role

- For complex systems or larger organizations: architecting is separated from developing
 - Architects do not change the system
 - And therefore they do not change the architecture

Example: a hotel chain



The IT landscape looked like this...

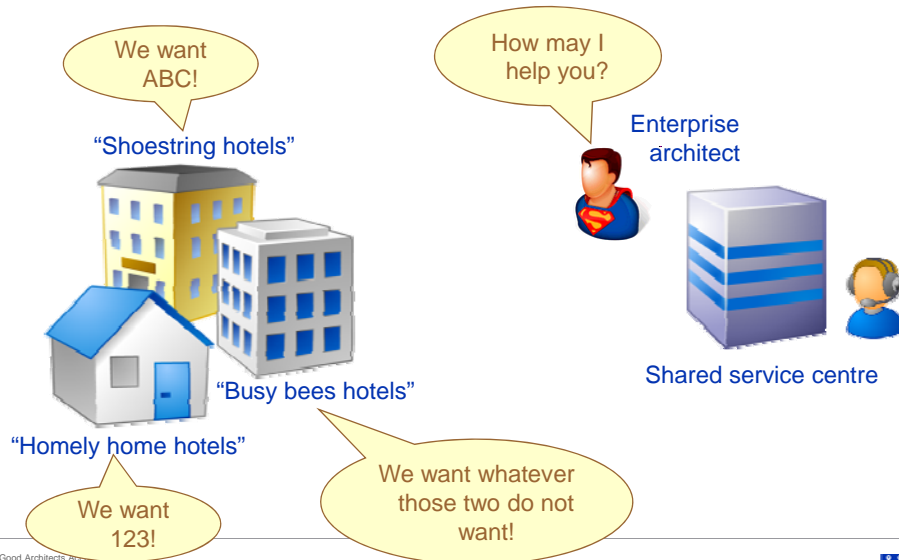


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Forth came the architects...



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Six years later, the architecture looked like this...



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What the architects produced...



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Why?

- The architects were busy architecting...
 - Creating visions
 - Gathering requirements
 - Designing solutions
 - Evaluating their choices

- ...but they did not manage to get their ideas into practice

- Why?
 - Management did not invest enough time
 - Key people left at unfortunate moments
 - Business people refused to make a decision until they had more information
 - Project owners lost interest
 - Hobby projects of higher management ignored enterprise architecture completely
 - etc. etc.

So... why?

- Because the architects failed to influence the social system that creates the architecture

- All organizations have such a social system. It includes (but is not limited to):
 - Organization structure and formal processes
 - Key positions and who hold them
 - Informal organization
 - Culture
 - Money flows
 - Decision power
 - Reward schemes
 - Personal interests, hobby's, goals, ...
 - Who (dis)likes who
 - ...

- Architecting is about managing change!



Thinking about change in five colors [De Caluwé & Vermaak 2002*]

- **Yellow thinking**
 - Change by creating support and consensus, influence key people, make deals and tradeoffs, minimize resistance, 'sense of urgency'
- **Blue thinking**
 - Design and implement changes using predefined plans, focus on ratio and facts, establish grip by planning, 'sense of control'
- **Red thinking**
 - Change through motivating and seducing people, create commitment, work together with as many people as possible, create perspective and a good atmosphere, 'sense of belonging'
- **Green thinking**
 - Change by stimulating learning, enable personal development, make people curious, allow investigation and exploration, focus on feedback and reflection, share good practices, 'sense of professionalism'
- **White thinking**
 - Change by allow self organization, search for energy, initiatives and courage in the organization, steer, coach and support people, remove hurdles to stimulate innovation and interaction, 'sense of humor'

* L. de Caluwé, H. Vermaak. "Learning to Change: A guide for Organizational Change Agents". Sage Publications, Inc, 2002, ISBN-13: 978-0761927020.

Yellow thinking in an architecture context

- Architecture as part of the sociopolitical game
- The architecture reflects the common vision
- The goal of architecture is to realize business goals while taking all concerns in account
- In practice
 - Workshops
 - 1-on-1 discussions
 - Negotiations
 - Creating 'win-win' situations



Blue thinking in an architecture context

- Architecture as steering mechanism for directing change
- The architecture ensures that planning of projects become more trustworthy
- The architecture helps to rationalize design decisions
- In practice
 - Focus on baseline and target architectures
 - Roadmaps
 - Rigid architecture processes
 - Clearly defined architecture deliverables
 - Project-based architecture work



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Red thinking in an architecture context

- Architecture is about collaboration and stating clear goals
- The goal of architecture is to identify measurable personal objectives and rewards
- Architecture helps identifying personal objectives and rewards of colleagues
- In practice
 - Define roles, responsibilities in function profiles
 - Define architecture function and position this in the organization
 - Employees know what working under architecture is and how they can benefit from it



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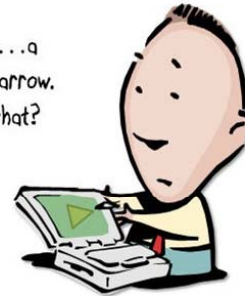
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Green thinking in an architecture context

- Architecture is a mechanism for the organization to learn, develop, and innovate
- Working under architecture is a collaborative and continuous learning activity
- In practice
 - Publishing, attending conferences, etc. is stimulated,
 - Architects get freedom to experiment with methods, techniques and tools.
 - Knowledge and best practices are shared
 - Architecture coaches, master/apprentice relations

Uh oh...a
NEXT arrow.
Now what?



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White thinking in an architecture context

- Architecture as instrument to support self-organization and innovation-needs of employees and to manage the outcomes
- Architecture is an effect of the joint knowledge and skills of all employees
 - It will emerge and evolve naturally
- In practice
 - Continuous monitoring on who will do what with working under architecture
 - Bringing various architecture initiatives together
 - Subtle steering when necessary
 - Removing hurdles to enable architecture work



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Example 1: The hotel chain

vs.

- The enterprise architects favored blue:
 - thorough analysis and fact finding
 - focused on defining processes
 - making plans of what the world should look like
 - ...

- But key players in the social system reacted in yellow:
 - defending themselves against intrusion
 - staying in power

- Solution
 - Still working on it
 - New lead architect: blue communication with the architects, influencing key figures in a yellow manner
 - It takes time to change the organization
 - Small successes: architecture now seen as a potentially useful instrument (instead of a threat) at the higher management levels

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Example 2: Elderly care organization

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- Context
 - Small organization with little formal processes, fuzzy responsibilities
 - A lot of emphasis on personnel satisfaction and situational management
 - An IT department focused on stability and keeping users happy.
 - Higher management focused on innovation with IT.

- Deadlock: management keeps coming up with new ideas, IT starts projects that get stuck in the analysis phase.

- Solution
 - Establishing new rules of the game: how to start, postpone or kill a project.
 - Creating tension in the organization by making business managers project owner.

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Example 3: Large government organization



- Context
 - Various process and product documents that prescribe the way of working
 - Corporate politics: project managers and business domains who play by their own rules
 - A lot of architects and designers, all with their own sphere of influence

- Experiences
 - Architects who slavishly follow the dictated process
 - "I cannot start with writing document Y until John has finished document X"
 - A lot of overlap and lack of traceability between architecture and design documents
 - Long and tedious architecture and design phase, but during implementation things go wrong

- Solution
 - Large-scale training programs about software architecture + individual training budgets
 - Various 'architecture boards' and platforms to promote collaboration and share experiences
 - Ambition for more pragmatism, less rigid work processes, and formal deliverables

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Good architects act as chameleons



- A 'yellow' architect
 - Can close deals
 - Use his power and influence
 - Is sensitive for power processes in the system

- A 'blue' architect
 - Can create the best solutions and implement them
 - Has in-depth knowledge
 - Is analytical and focused on performance

- A 'red' architect
 - Can (help to) actively involve and motivate people
 - Is strong in communication and teamwork
 - Is empathic and warmhearted to people

- A 'green' architect
 - Can develop and facilitate learning environments
 - Reflects on current events to learn
 - Is curious and coaching

- A 'white' architect
 - Can interpret patterns and catalyze change
 - Can handle paradoxes and ambiguities
 - Is direct and self-aware



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IT landscape photography

Capturing the essence of an IT landscape in one or more visualizations that are appealing to – and accessible for – a specific target audience, typically non-IT experts

Automated processes / scripts

Core systems, stakeholders, business domains

Ownership of systems

Main observations from the trenches

- Still a lot of blue architecting...
- ... but increasing awareness for yellow aspects:
 - Focus on stakeholder management
 - From the ivory tower to the business
- Organizations increasingly try to establish red/green environments
 - Establishment of architecture functions,
 - Focus on roles and responsibilities, attention for architecture in function profiles
 - Architect competency development, e.g., using training programs
- Green architect seem rare
 - Are they hidden? Do organizations sufficiently allow architects to be green?

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Conclusions

- Architects need to effectively influence the social system that creates architectures
- Awareness of your own 'color' and that of your stakeholders and organization helps
- Good architects change their color when needed
- Predominant colors in practice (the Netherlands) seem to be blue and yellow
 - More case studies are needed to validate this observed trend
 - Country/culture dependent?
- An increase in red, green, and white architecting further matures the state-of-the practice

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