Maintaining & Increasing Stakeholder Confidence in IT Architecture

Eoin Woods
eoin@artechra.com
www.eoinwoods.info

Content

- Defining IT Architecture
- IT Architecture & Requirements
- Identifying Stakeholders
- Engaging Stakeholders
- Increasing Stakeholder Confidence

About Me

- Experienced IT architect
  - 15 years industrial experience
- Product developer, consultant, IT architect
  - Bull, Sybase, InterTrust, Zuhlke
- Today, IT architect at investment bank
  - Cross business stream consultant architect

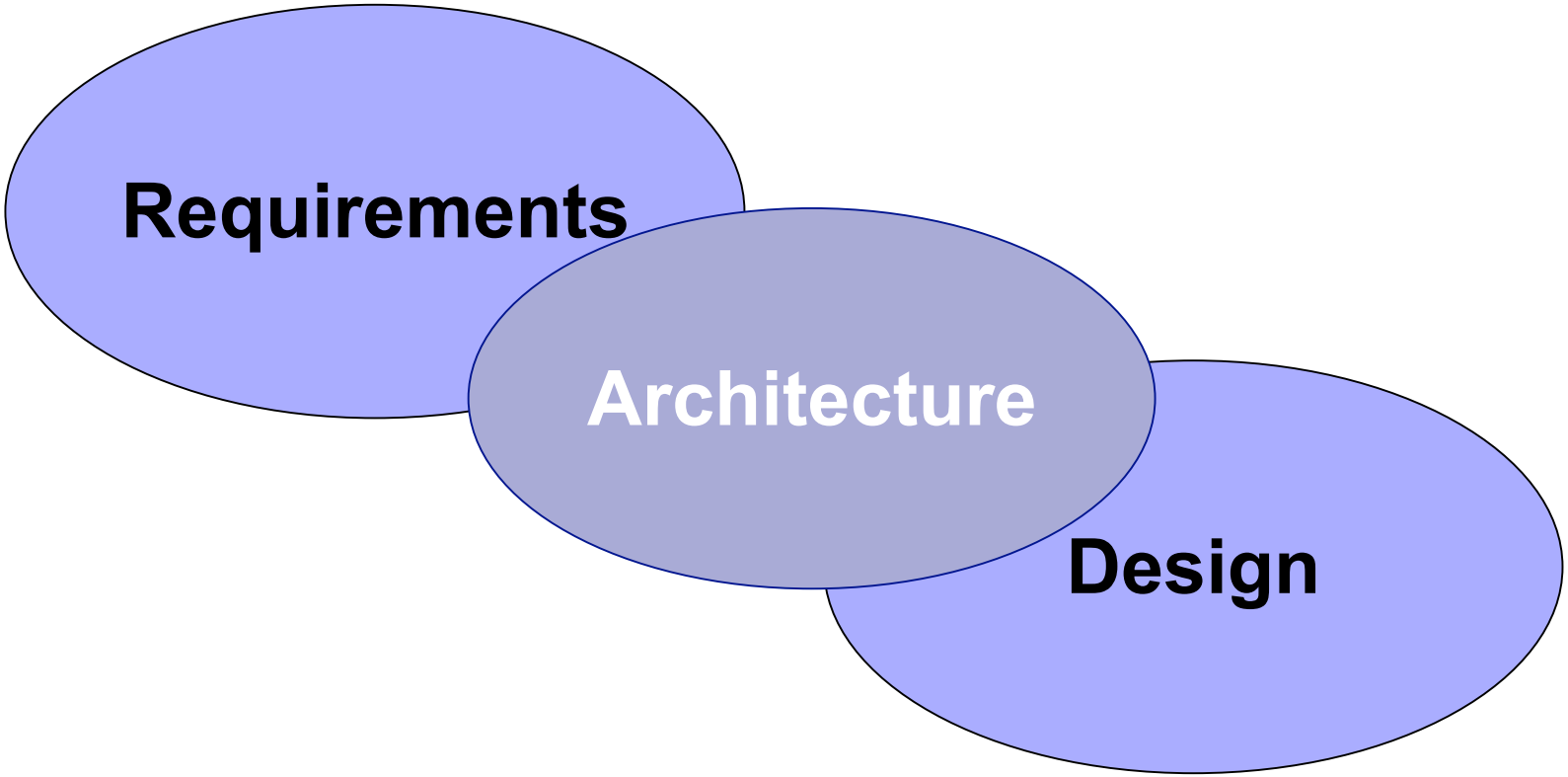
Artechra

Defining IT Architecture

- Software Architecture
  - The key design decisions for a system
  - Dictates the properties of the system
  - Designed to meet stakeholder needs
- Domain Architecture
  - The systems of a business line
- Enterprise Architecture
  - The systems across the organisation

Role of Software Architecture

A crucial bridge between requirements and design



Architecture & Requirements

- Requirements are an input to architecture
  - Requirements frame the architectural problem
  - Stakeholder needs and desires
- Architecture must influence requirements
  - “The art of the possible”
  - Stakeholder understanding of risk/cost
  - Stakeholder understanding of possibilities

Identifying Stakeholders

- Who are the stakeholders?
  - People, Groups, Entities
  - Those who have an interest in or concerns about the realisation of the architecture
- Importance of Stakeholders
  - Architectures are built for stakeholders
  - Decisions must reflect stakeholder needs
  - Involving a wide stakeholder community increases your chances of success

Who Are Our Stakeholders?

- Executive Management?
- Business Unit Heads?
- End Users?
- Developers?

All of these and more!

Identifying Stakeholders

- **Acquirers** pay for the system
- **Assessors** check for compliance
- **Communicators** create documents and training
- **Developers** create it
- **Maintainers** evolve and fix it
- **Suppliers** provide parts of the system
- **Support Staff** help people to use the system
- **System Administrators**, keep it running
- **Testers** verify that it works
- **Users** have to use the system directly

Effective Stakeholders

- **Informed**
  - to allow them to make good decisions
- **Committed**
  - to the process and willing to make themselves available and make hard decisions
- **Authorised**
  - to make decisions
- **Representative**
  - of their stakeholder group so that they present its views validly

Engaging Stakeholders

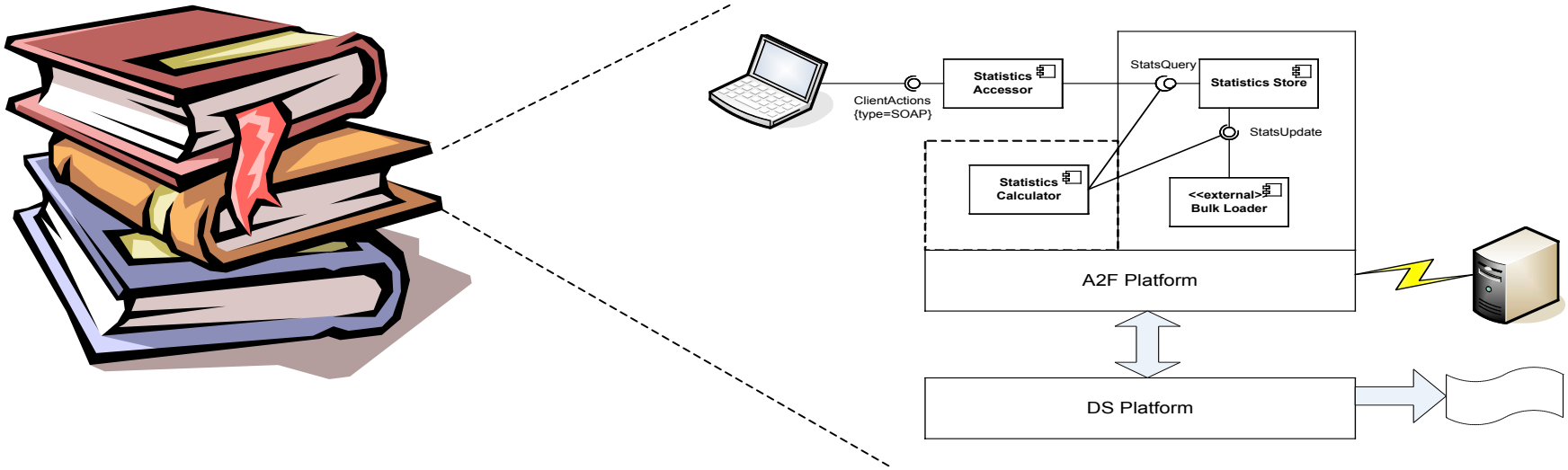
- **Understand** their needs for the system(s)
  - needs vs. desires!
- Make **decisions** that reflect these needs
  - decisions driven by stakeholder needs
- Make **tradeoffs** where required
  - the “right” answer often isn’t possible
- **Deliver bad news** where necessary
  - honestly and quickly to allow early remedy

Gaining Stakeholder Confidence

- Stakeholders need to feel that
  - Their needs are being addressed
  - Their concerns are understood
  - Their input is valued and used
  - Their involvement makes a difference

- In short: ***involve and communicate***

Traditional IT Communication

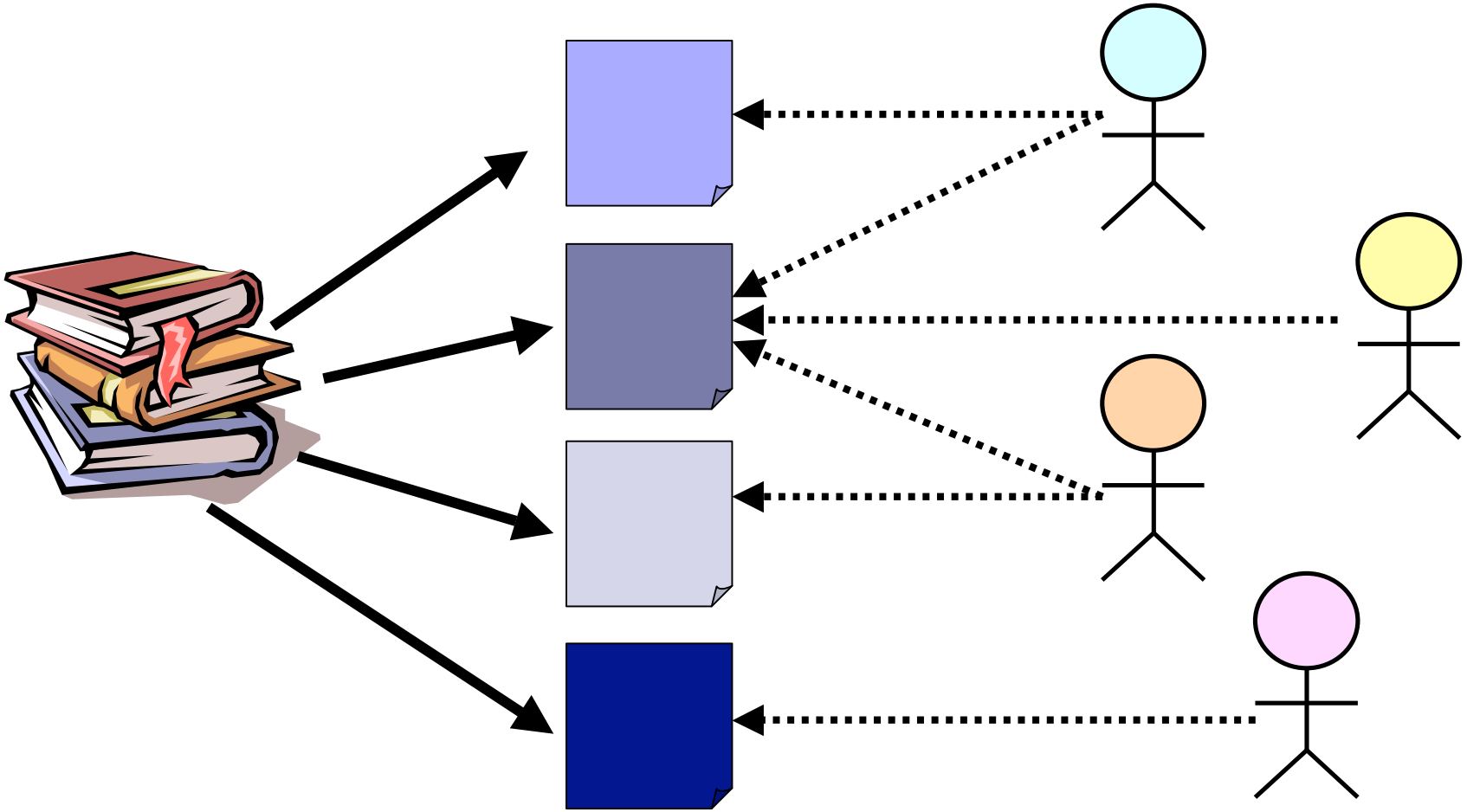


Who does this speak to? Anyone?

Gaining Stakeholder Confidence

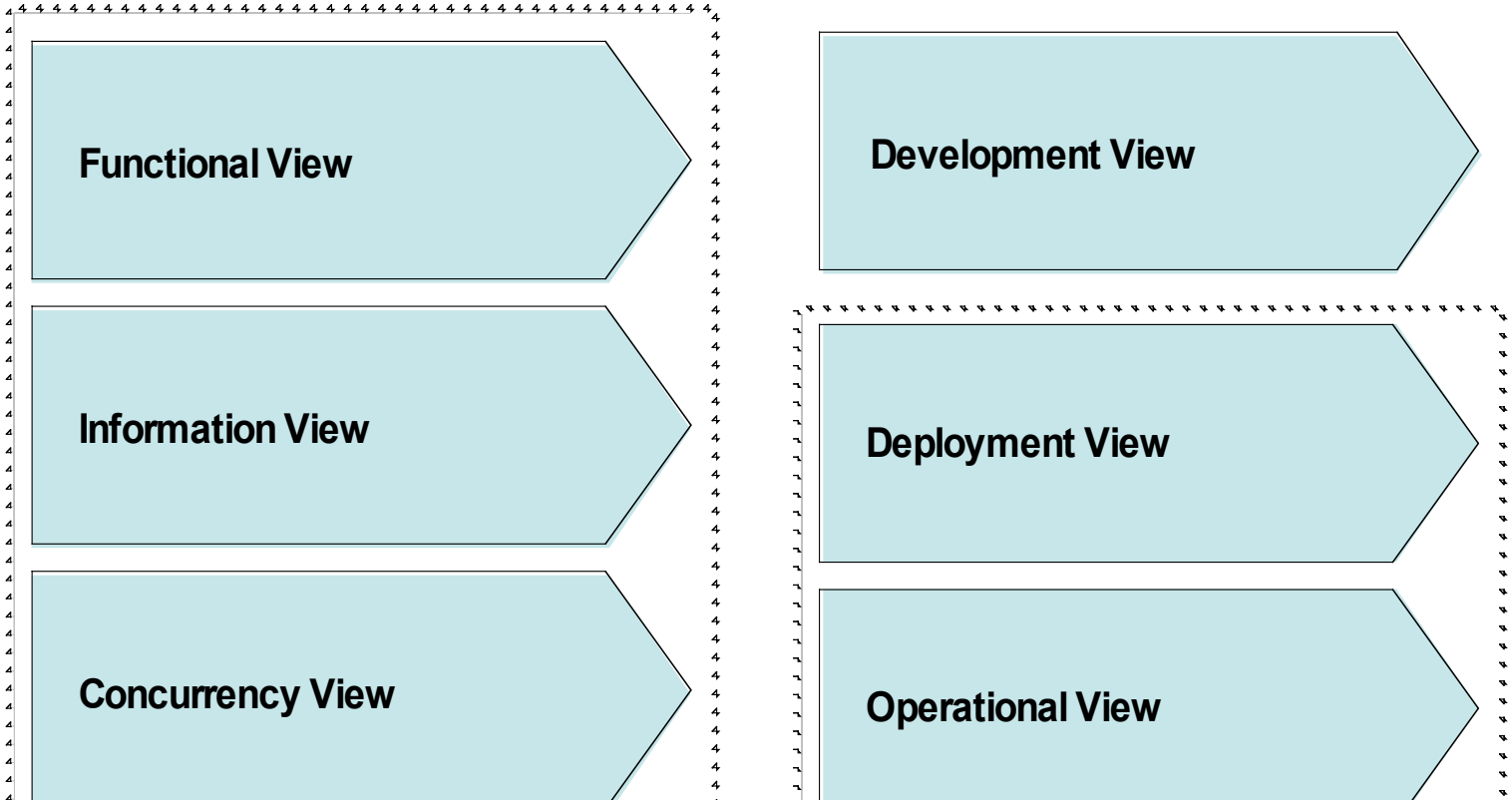
- Stakeholders interests & concerns vary
  - Functions and functional structure
  - Concurrency structures
  - Information stored, managed and used
  - Deployment platform & environment
  - Development constraints needed
  - Operational environment needs
- Need to communicate in their language

Effective Architectural Description



Decompose monolithic descriptions into ***views***

Effective Architectural Description



Example set of views for IT architecture

Effective Architectural Description

- Architectural views
  - Targeted at one or more stakeholder groups
  - Focus attention on one piece of the problem
  - Help to hold stakeholder interest
  - Communicate effectively by using the right notations / models etc. for that view
  - Encourage stakeholder feedback and involvement due to their relevance

Increasing Stakeholder Confidence

- Views solve part of the problem
  - Decompose a monolithic description
  - But no consistency or standards
- To be effective, and engender confidence, views need to be standardised
  - To reuse effective practice
  - Avoid stakeholder confusion and resistance
  - To encourage consistency
  - Present stakeholders with familiar artefacts

Effective Architectural Description

- Viewpoints provide templates for views
  - patterns, templates and conventions for constructing one type of view.
  - defines the stakeholders whose concerns are reflected in the viewpoint
  - guidelines and principles and template models for constructing its views.
- Viewpoints help to ensure consistency
  - aid adoption
  - increase effectiveness

Benefits of Viewpoints & Views

- A framework for organising work
- A store of knowledge
  - document proven practice
  - help to standardise languages and approaches
- A vehicle for stakeholder communication
- Usable by architects at different career stages
  - **mentor** novice architects
  - **guide** working architects
  - **support** expert architects

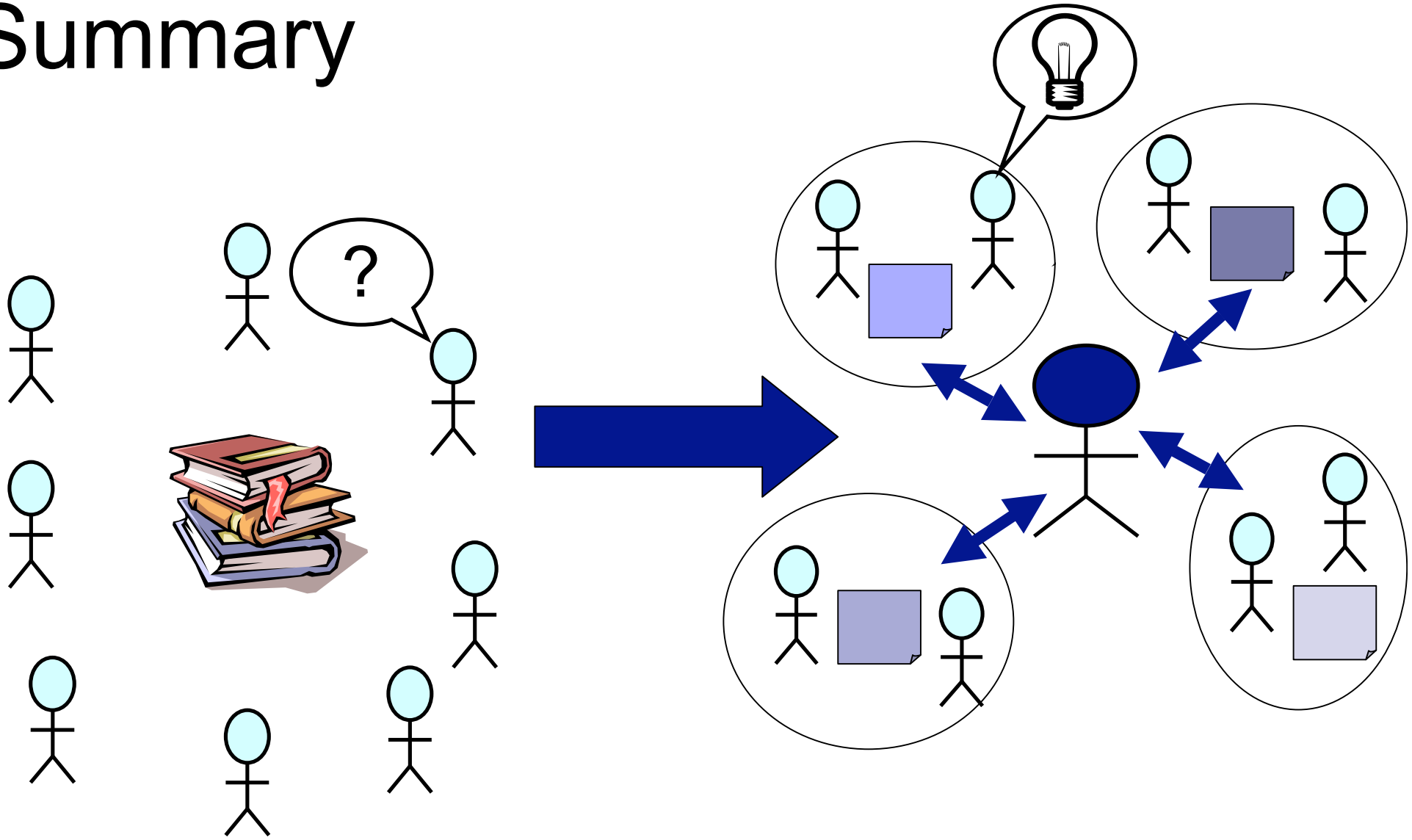
Summary

- Stakeholders need to be part of the architectural process, not outside it
- Traditional descriptions are impenetrable to most stakeholders and so exclude them
- Views open up the architectural description and focus it on stakeholders
- Viewpoints provide guidance and aid the consistency required for effective use

Summary (ii)

- Having stakeholders in the architectural process increases confidence in IT
  - concerns understood
  - tradeoffs and decisions understood
  - two way communication & partnership
- Stakeholders outside the process leads to a loss of confidence and ultimately effectiveness

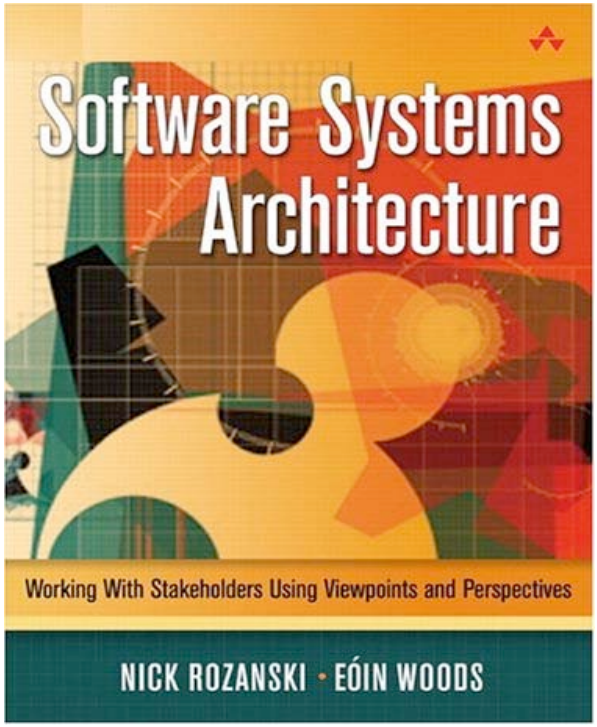
Summary



To Learn More

Software Systems Architecture: Working With Stakeholders Using Viewpoints and Perspectives

Nick Rozanski & Eoin Woods
Addison Wesley, 2005



http://www.viewpoints-and-perspectives.info

Nick Rozanski
nick@artechra.com
www.nick.rozanski.com

Eoin Woods
eoin@artechra.com
www.eoinwoods.info

Comments and Questions?