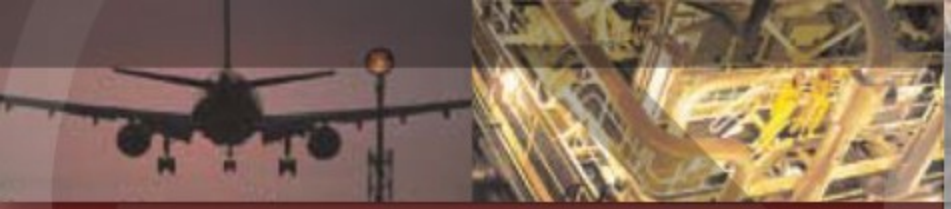

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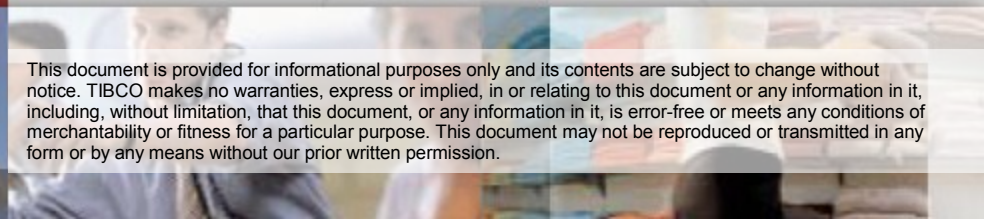
The KISS Principle Applied to SOA Using SCA

How can all those SCA specifications make my life easier!?

Eric Johnson
Principal Architect, TIBCO Software Inc.

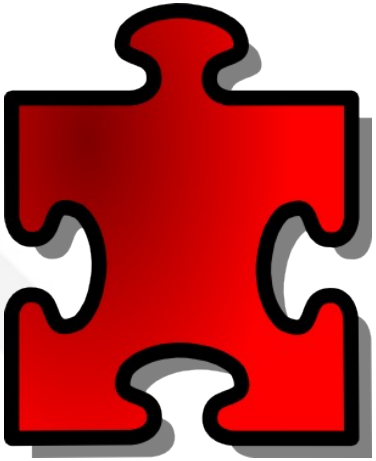
Enterprise Software – where are we now?

Complexity, what complexity?

SAML
WS-Security
WS-I BasicProfile
Java
WS-Transactions
SOAP 1.1
XACML
WS-MetadataExchange
UDDI
Atom
WS-Policy
SMTP
HTTP
SCA
.NET
SOAP 1.2
XML
REST
OpenID
WSDL 1.1
BPMN
WS-ReliableMessaging
BPEL
JSP
WSDL 2.0
JMS
RelaxNG
XML Schema
EJB

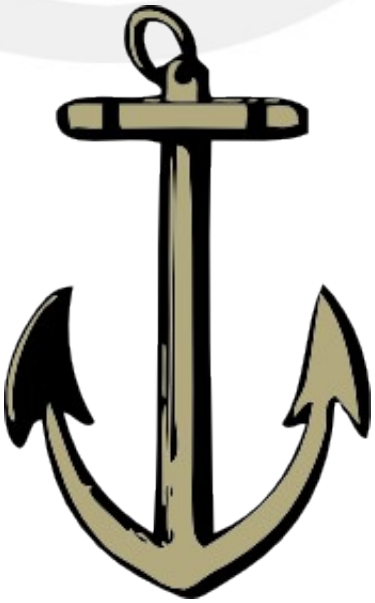
What are the problematic details of enterprise software?

- Very complex (read – expensive)
- Concepts vary from vendor to vendor
  - even from tool to tool within vendors!
- People forced to make a significant investment based on particular vendors tools
- Tied to a platform, it is difficult to refactor and reuse business logic



Abstractions are essential, if they're the right ones.

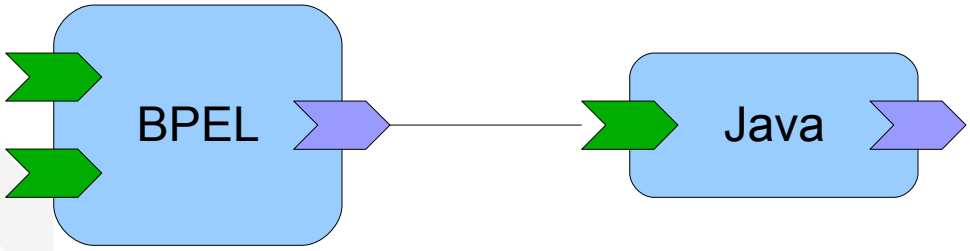
- Java EE solves lots of problems by pushing programming problems to the “container”.
- Brought together technologies in a pre-“services” world.
- Now we need something for the services world...



Is it going to get better?

Yes! SCA means to help! And here's how...

- Defining common concepts for design, implementation, configuration, and deployment
- Clear(er) separation of roles
- Isolating business logic from environment
- Separates design “intent” from how functionality gets exposed



SCA brings together all of your SOA related technologies into one context.

- Unifies how business logic exposes itself via services, and accesses other services via references
- Less vendor lock-in over time
- ... sounds great – so what's the catch?

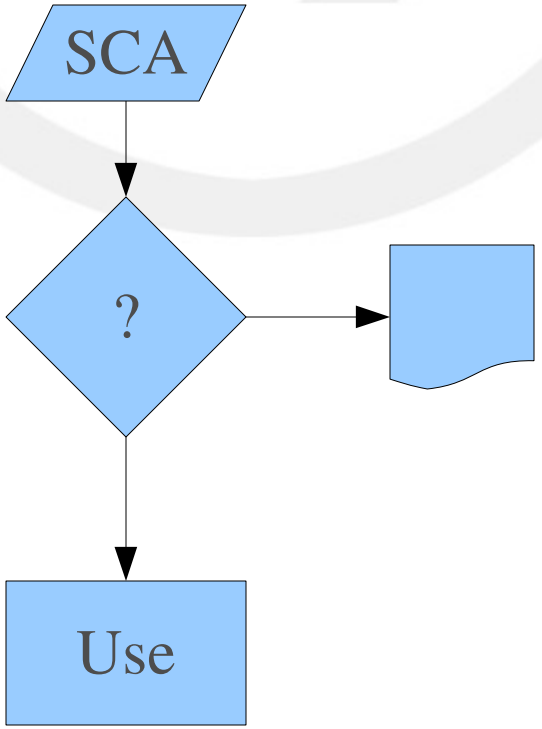
There are just a few gotchas lurking around SCA.

- Fully extensible set of specifications
- Not fully baked – OASIS TCs still in progress
- Vendor support?

SCA has clear benefits, but brings new complexity.
Now what do I do?

What techniques make sense to apply to using SCA to keep the problems tractable?

- Avoid the full of complexity of the specification
- Develop centers of expertise, and start small
- Establish conventions
- Stick to a single vendor
- Maybe even *ignore* the vendors
- Above all, apply the KISS principle

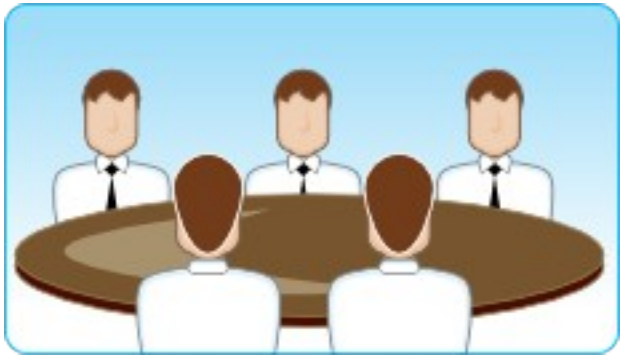


Avoid the full complexity of the specification.

- Pick parts that will help you out *right now*
- Use it for a particular purpose
- Follow expected paths

Develop centers of expertise and start small.

- Pick a core group of people that will start with SCA
- Use this group to figure out what is appropriate
- Invest in exposing them to a variety of sources of information and training
- Have additional teams start using SCA only after core team is ready to mentor



Establish clear conventions for use.

- **Even better – use conventions set out by a vendor's tool**
- **Validate conformance to those conventions**
- **Examples:**
  - Always/never assign policy intents to references
  - Use only agreed-upon implementation and binding types
  - Never use “wires” stand-alone
  - Use only single-part WSDL messages

Stick to a single vendor.

- Do you constantly switch database, compiler, and operating system vendors...?
- Pressure the vendor of your choice to satisfy your needs
- Learn the specifics of the vendor's tools, exploit them when appropriate.

What do you mean by “ignore the vendors!?” How can that work?

- **Maybe you think it is too early to get on the bandwagon?**
- **Options:**
  - Start learning the specifications – learn the terms, concepts, patterns, and approaches
  - Apply SCA ways of thinking in your architecture
  - Use it like you would UML – diagram your services
- **... and you're a lot further along when the vendors catch up to you.**

Continually reassess how you measure up to the KISS principle.

- **SCA, BPEL, SDO, JAX-WS, SOAP, WS-ReliableMessaging, JMS, WSDL – do you really need it *all*?**
- ***Unnecessary* complexity is the enemy of**
  - Predictability
  - Reliability
  - Security

Conclusion

- Get on the SCA bandwagon
- Do so cautiously
- ... and of course, I think you should use TIBCO products to do so

Questions?

Credits

- **Original SCA work: http://www.osoa.org**
- **Ongoing work at OASIS: http://www.oasis-open.org**
- **Artwork from http://www.openclipart.org**
  - converted to PNG with Inkscape (http://www.inkscape.org/)
    - Puzzle piece: http://openclipart.org/media/files/nicubunu/7859
    - Anchor: http://openclipart.org/media/files/johnny_automatic/2914
    - Dragon: http://openclipart.org/media/files/PeterM/114
    - Lightbulb: http://openclipart.org/media/files/Anonymous/7121
    - Road: http://openclipart.org/media/files/abadr/7686
    - People at table: http://openclipart.org/media/files/neocreo/5282
    - Book: http://openclipart.org/media/files/barretr/6170