

The Four Pillars of Service-Orientation

Thomas Erl, SOA Systems Inc. & Arcitura Education Inc.



Service-Orientation & SOA 101

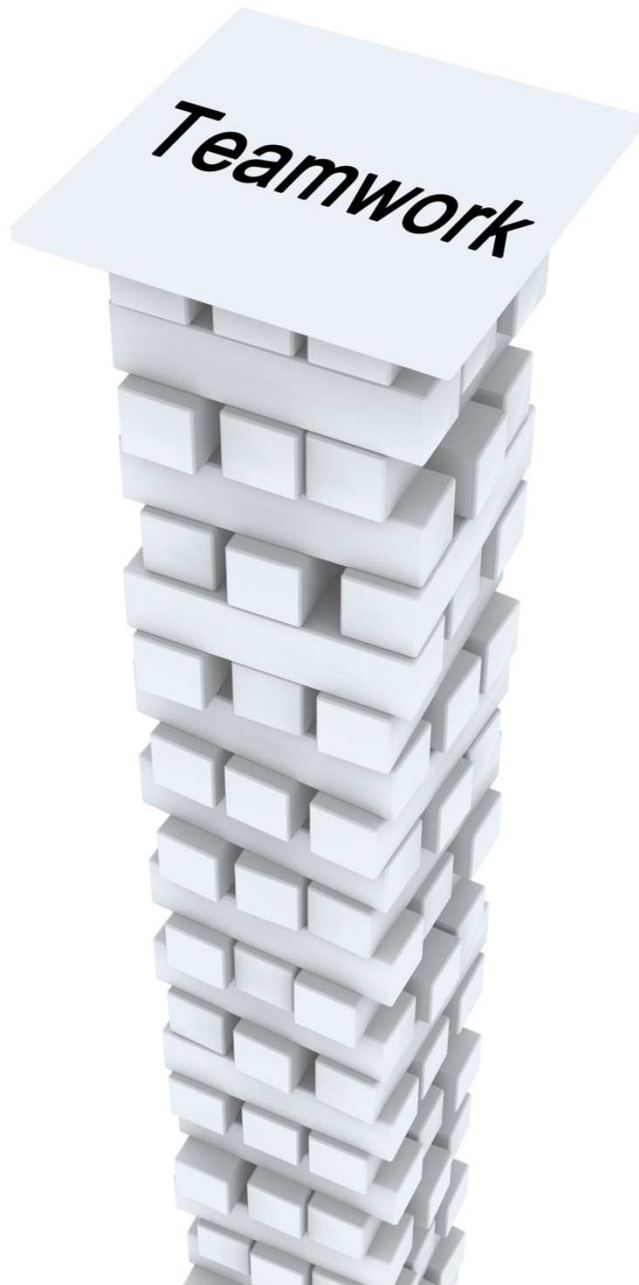
- There is a set of strategic goals associated with service-oriented computing.
- These goals represent a specific target state.
- Service-orientation is the paradigm provides a proven method for achieving this target state.
- When we apply service-orientation to the design of software, we build units of logic called “services”.
- Service-oriented solutions are comprised of one or more services.
- To build successful service-oriented solutions, we need a distributed technology architecture with specific characteristics
- These characteristics distinguish the technology architecture as being service-oriented. This is SOA.



Four Pillars of Service-Orientation

- Proven practices, patterns, principles, and technologies exist in support of realizing and applying service-orientation.
- However, because of the distinctly strategic nature of the target state that service-orientation aims to establish, there is a set of fundamental critical success factors that act as common pre-requisites for the adoption of service-orientation.
- These critical success factors are referred to as **pillars** because they collectively establish a healthy foundation upon which to build, deploy, and govern services.

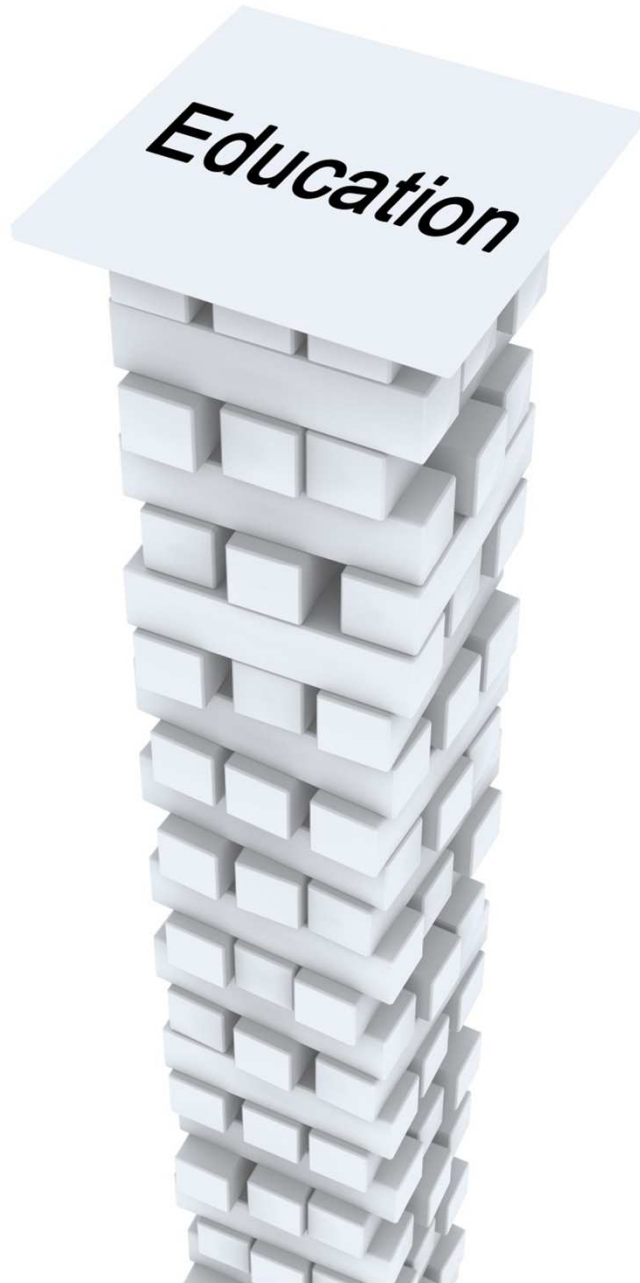
Pillar # 1



- Traditional silo-based applications require cooperation among members of individual project teams.
- Service-oriented solution delivery requires cooperation across project teams.
- The scope of required **teamwork** is essentially larger with new dynamics, roles, and relationships.
- Those across the team will need to trust and rely on each other; otherwise the team will fail.



Pillar #2



- How can cooperative team members function effectively and learn to rely on and trust each other?

Education.



- A common education in service-orientation, SOA, and service technologies establishes a **common communications framework** among all team members.
- The resulting clarity of concepts, method, and the target state that everyone is working toward eliminates many of the common risks that have plagued SOA projects.

Pillar # 3



- How can we establish the necessary consistency for the use of knowledge amongst a cooperative team? **Discipline.**
- To be successful as a whole, team members must be disciplined in how they apply their knowledge to how they carry out their roles.
- Required measures of discipline are commonly expressed in **methodology and governance systems**.
- Even with the best intentions, an educated and cooperative team without discipline will fail.

Discipline



Pillar # 4

So far we've established that we need:

- larger, cooperative teams that have...
- a common education in fields pertaining to service-orientation, and that we need to...
- follow common methodology and governance in a disciplined manner

How can this be realistically achieved?

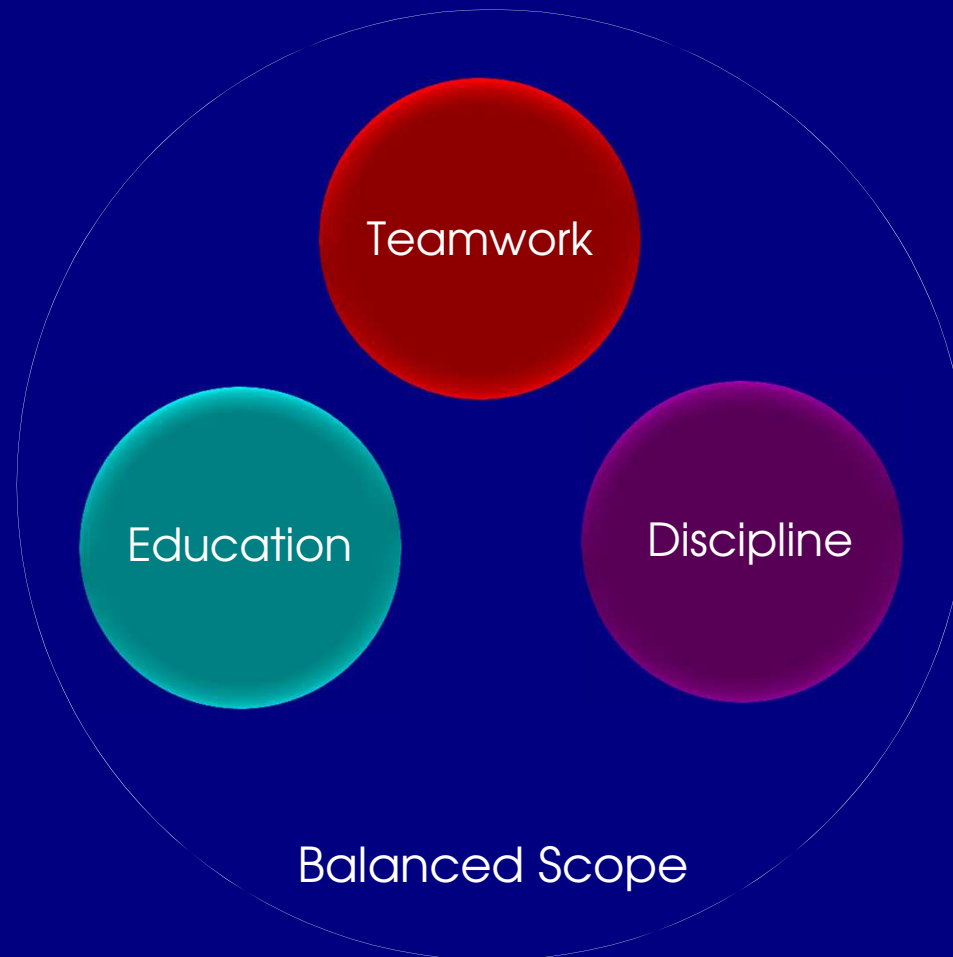
Pillar # 4



- *"The scope of SOA adoption can vary. Keep efforts manageable and within meaningful boundaries."*
– SOA Manifesto
(www.soa-manifesto.org)
- The scope of adoption needs to be meaningfully cross-silo, while also realistically manageable.
- This requires the definition of a **balanced scope** of adoption of service-orientation.

Balanced
Scope

Once a balanced scope of adoption has been set, this scope determines the extent to which the other three pillars need to be established.



Conversely, the extent to which you can realize the other three pillars will influence how you determine the scope.



Pillar #4: Balanced Scope

Balanced
Scope

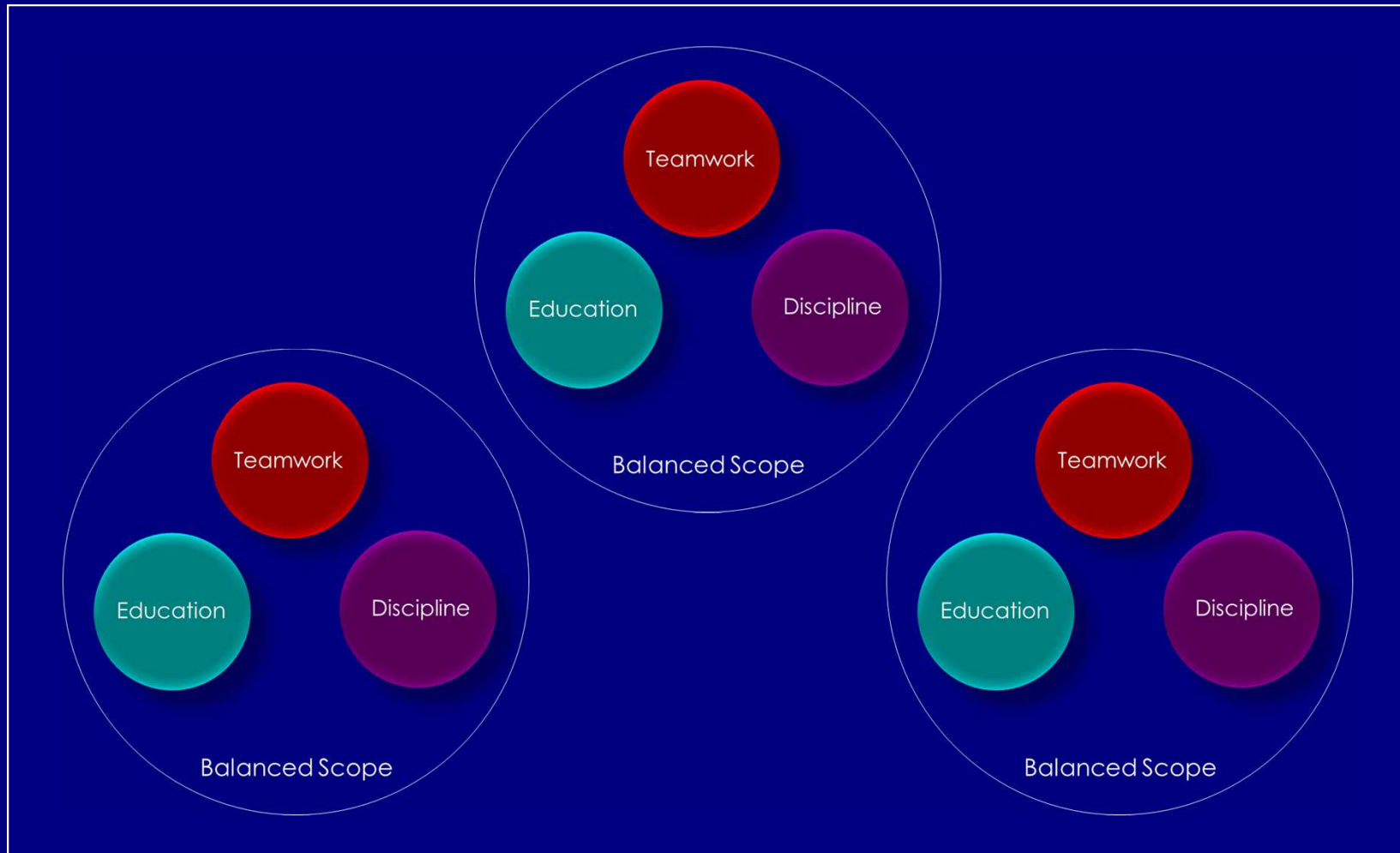
- A single organization can choose one or more balanced adoption scopes.
- Having multiple scopes results in a **domain-based approach to adoption**.
- Each domain establishes a boundary for an inventory of services.
- Among domains, adoption of service-orientation and the delivery of services can occur independently.
- This establishes “**continents of services**” within the IT enterprise.

(This concept originated with the Domain Inventory pattern.)



Pillar #4: Balanced Scope

IT Enterprise



Scope of the Pillars



Teamwork, education, and discipline represent foundational critical success factors for the successful adoption of service-orientation. Setting a meaningful and manageable scope of adoption establishes a boundary in which services are to be delivered and consequently determines the extent to which the first three critical success factors can and need to be realized. Setting a balanced scope is a strategic planning decision and therefore itself a critical success factor.

An absence of any
one pillar will lead to a
poor foundation and,
ultimately, failure.



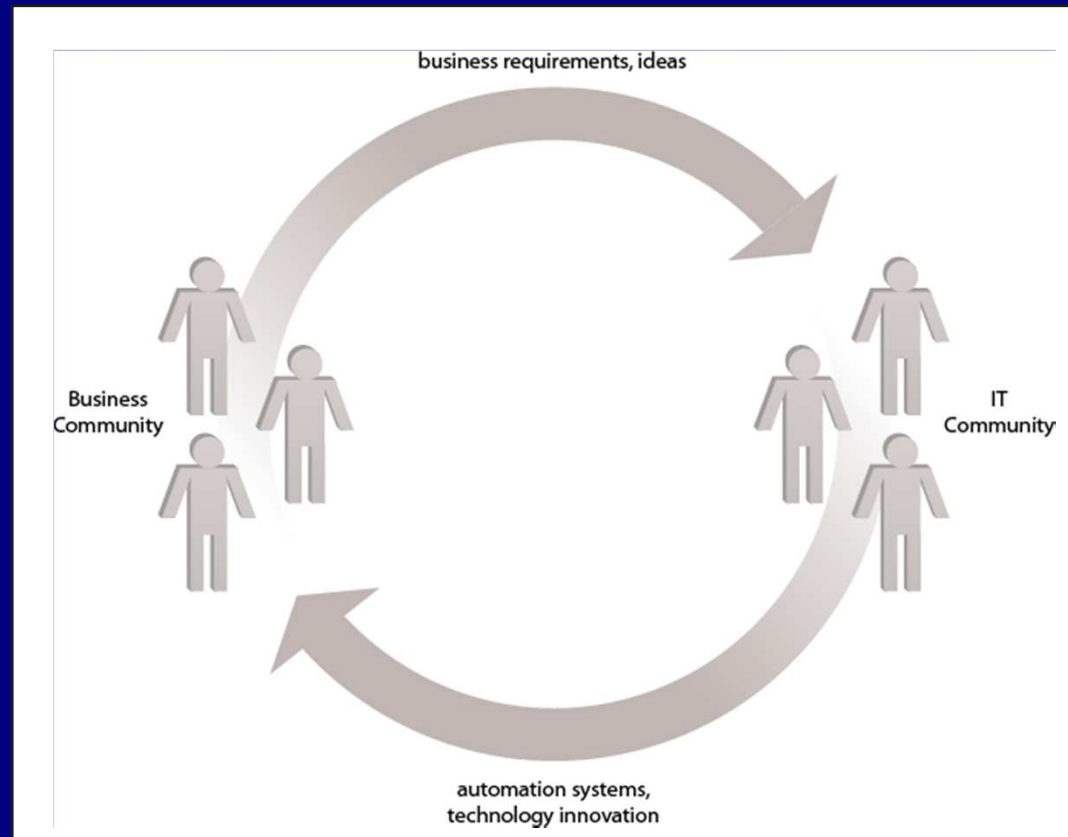


Maintaining all four pillars will maintain a healthy foundation and, ultimately, longevity.



Service-Orientation and Change

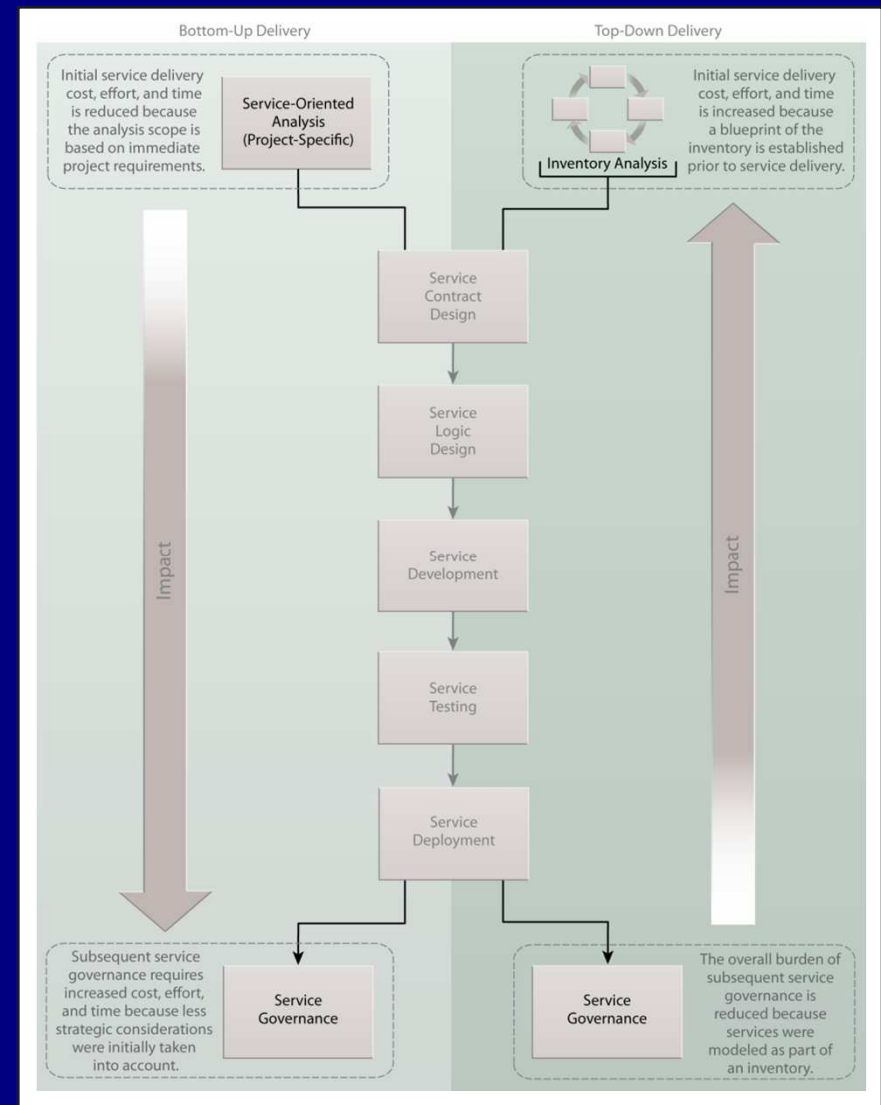
The essence of service-orientation is to establish an IT environment inherently capable of accommodating change.





Service-Orientation and SOA Governance

- The upfront application of service-orientation helps reduce the eventual governance burden of services.
- The primary goal of SOA governance is to ensure SOA initiatives achieve their targeted business outcomes.



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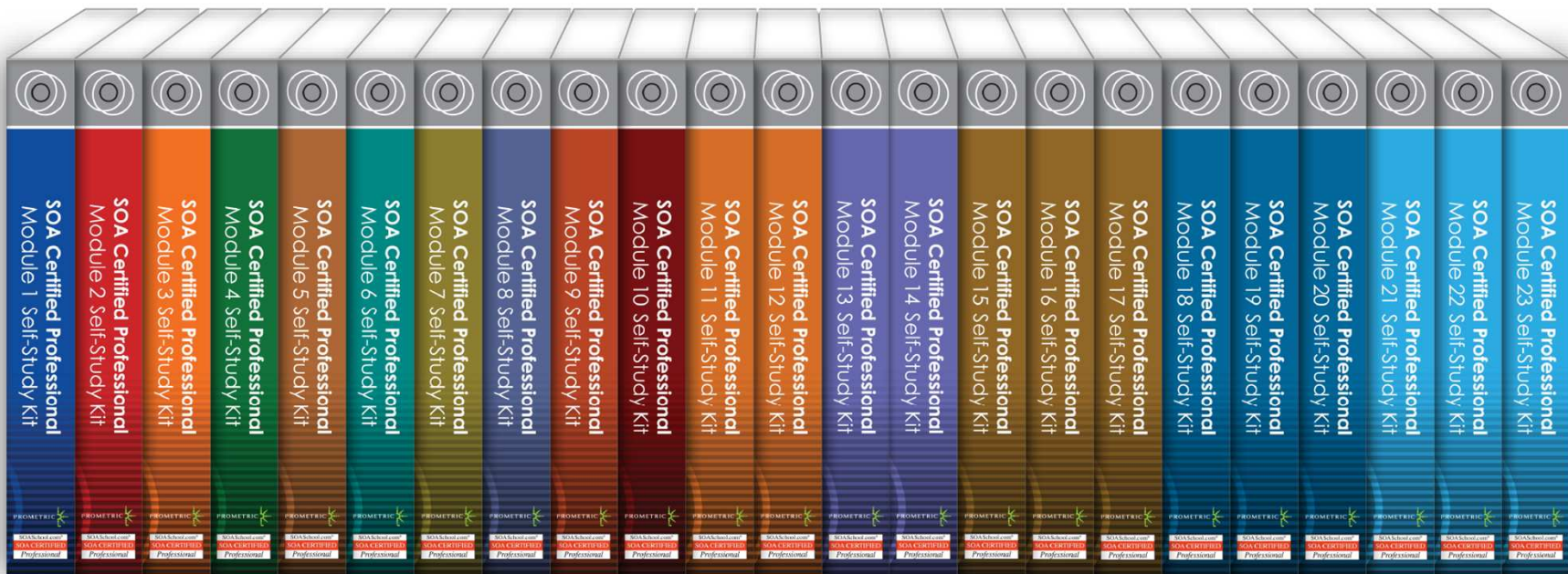
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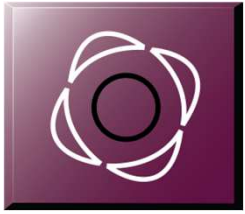


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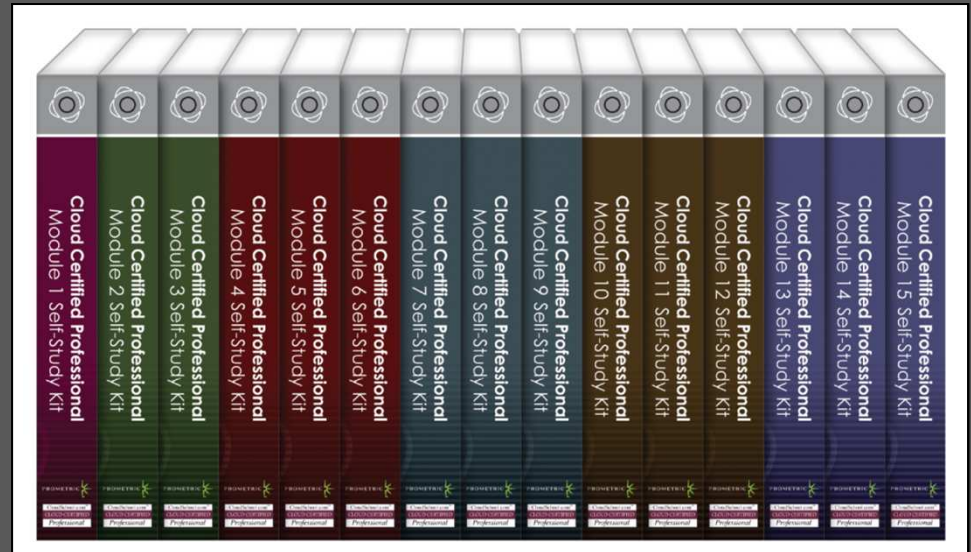
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Contact me:
terl@arcitura.com



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