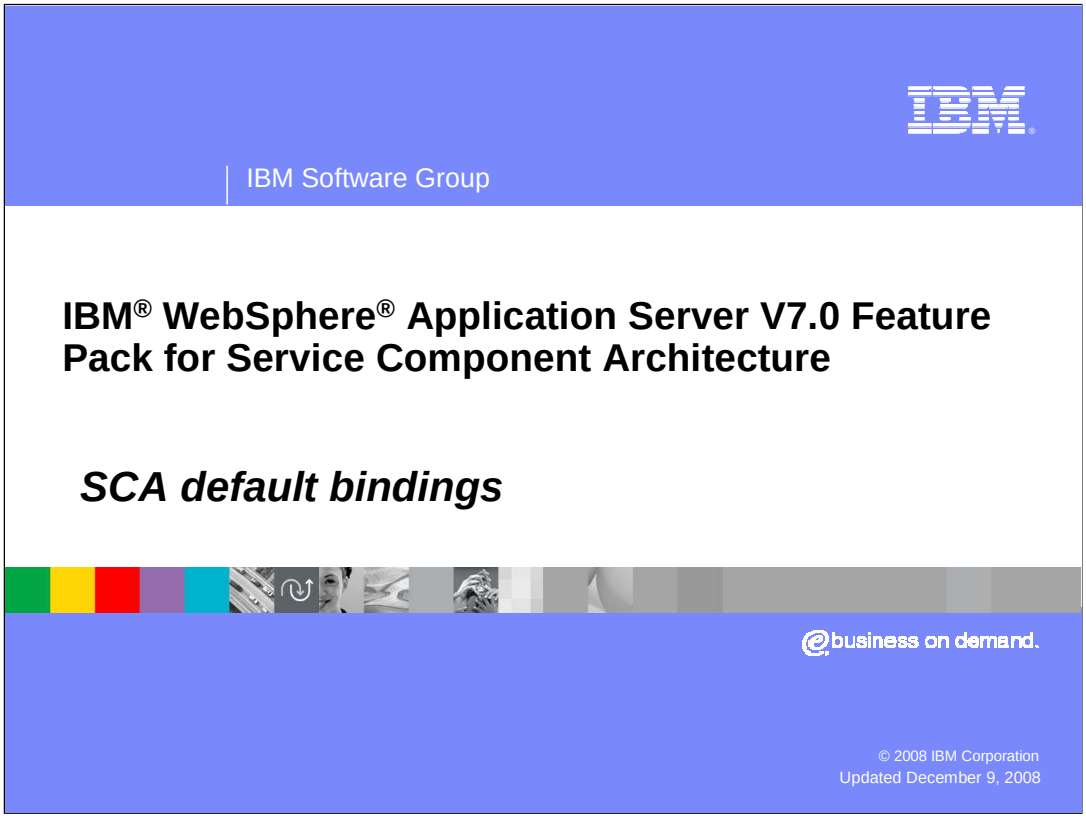


This presentation will cover the SCA default bindings

Default binding

- Also known as SCA binding
- Only used when a service and its client are both running in the same domain
- Used when no other binding is specified for a configuration of a component reference or service
- Default binding is the preferred binding to use for an SCA client invoking an SCA service
- Not intended to be interoperable in any way with other SCA runtimes' implementations

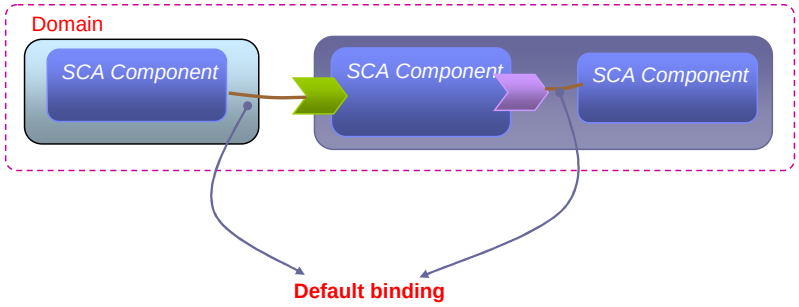
Every SCA runtime also provides an *SCA binding*. This binding is also known as the default binding meaning that it is the binding used when no other binding is specified for a configuration of a component reference or service. It is the natural binding to use for SCA-to-SCA invocations such as SCA client invoking SCA service.

The protocol this binding uses is not specified, therefore the SCA binding is only used when a service and its client are both running in the same domain. Since every vendor wants applications built on its products to perform well, it is safe to assume that this binding will most often use a binary protocol. This is not required, however; an SCA runtime is free to choose different protocols in different situations, all of which fall under the umbrella of the SCA binding. Additionally, this binding is not intended to be interoperable in any way with other SCA runtimes' implementations. For example, you cannot call over the default binding to invoke a WebSphere Process Server SCA service from an SCA feature pack client.

*** Note that SCA feature pack default binding implementation serializes xml although not specified in the specification.

The SCA binding can be used for service interactions between references and services contained within the SCA domain. It provides a very simple, easy-to-use way for an assembler to wire a reference to a service within an SCA composite, or at the Domain level. It tells the SCA runtime to make the connection between the reference and the service, without being prescriptive about how it should be done. The SCA runtime is then free to use any communication method it has available that is suitable for implementing the wire. The form of its implementation is not defined by the SCA specification. It can be implemented in different ways by different SCA runtimes, and is therefore not an interoperable binding type. For interoperability, an interoperable binding type such as the Web service binding should be used.

SCA domains and default binding



- Components communicating within the same domain do not need explicit bindings specified

As mentioned earlier, a component that communicates with another component in the same domain, even one in another process or on another machine does not need any explicit bindings specified. Instead, the SCA default *binding* is used. Domains are an important concept in SCA. To see why, realize that even though SCA allows creating distributed applications, it does not fully define how components on different machines should interact. As a result, the communication among these components can be implemented differently by different products. However, an SCA runtime can allow a vendor to create a *container* that plugs into that runtime to support a particular technology as an example. A domain can contain one or more composites, each of which has components implemented in one or more processes running on one or more machines.

For the SCA feature pack the domain is the Network Deployment cell.

As an example, suppose a division of a large firm chooses a particular company as its SCA vendor. This division is likely to install their chosen vendor's SCA runtime on several machines. This is not an unreasonable expectation, because it mirrors how organizations have typically purchased and installed JEE products. These SCA runtimes will likely be managed by the same group of people, and this set of systems—with a common vendor's runtime technology and common management. This example provides the primary example of a domain.

Summary

- Default binding, which is the default binding, is used when no other binding is specified for a configuration of a component reference or service.

Default binding, which is the default binding, is used when no other binding is specified for a configuration of a component reference or service.

References

- SCA specifications:

http://www.osoa.org/display/Main/Service+Component+Architecture+Specifications

The set of SCA specifications can be found at the address shown here.

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