

Proposal for a Naming Convention

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Proposal

This document contains a proposal to change the SCAv4.0.1 specification to use a naming convention for the names of the interfaces and components. The goal is to improve readability of the next release of the specification.

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Recommendation

Naming Convention

Topics

Introduction

Issues

Proposal – Interface Names

Proposal – Component Names

Introduction

The SCAv4 specification has been reformatted to improve the description of the different SCA components

- The description of the components is separated from the IDL interfaces they may implement.
- The requirements related to the IDL interfaces are clearly separated from the requirements related to specific components.

New terminology has been introduced in SCAv4.0.1 to support the above changes

New IDL interfaces have been introduced to support the above and to support new scalability features

Issues

No convention seems to be used for the names of IDL interfaces

- Some have a noun for name (e.g. ComponentFactory, LifeCycle)
- Some use a name and an adjective but in different order (e.g. ManagerRelease, ManageableComponent)
- A couple use the word “Object” as a suffix which does mean anything in the SCA modeling language

No obvious convention is used for the name of components

- The word “Component” is used to indicate a component but not always at the same place in the name (e.g. ComponentBaseDevice, DeviceComponent)

Issues

Some names lead to confusion

- The word “Component” is used in the name of some IDL interfaces (e.g. ControllableComponent interface) which defeats the purpose of making a separation between the components and their interfaces as SCAv4.0.1 is trying to accomplish
- There is no obvious naming convention that could help the developers make a difference between an interface that is meant to be aggregated with other interfaces to create a component (e.g. PropertySet) and the interfaces that are final (e.g. DomainManager)

Proposal – Interface Names

Proposal is to use a common naming convention for the name of the IDL interfaces to be more consistent and less ambiguous

- Recommendation is to use “Interface” as a suffix for sub-component level interfaces. This also in Google’s conventions.
- To determine the new name of each subcomponent interface, use the first operation defined in the interface. For example:
 - LifeCycle would be renamed to InitializableInterface since its first operation is initialize()
 - PropertySet would be renamed to ConfigurableInterface since its first operation is configure()
 - Etc.

Proposal – Interface Names

Using the proposed convention leads to the following name changes:

SCAv4.0.1	SCAv4.1
ComponentIdentifier	IdentifiableInterface
PortAccessor	ConnectableInterface
LifeCycle	InitializableInterface
TestableObject	TestableInterface
PropertySet	ConfigurableInterface
ControllableComponent	StartableInterface
ManagerRelease	ReleasableManagerInterface
ManageableComponent	AdministrableInterface
CapacityManagement	AllocatableInterface
LoadableObject	LoadableInterface
ExecutableDevice	ExecutableInterface
ParentDevice	ChildInterface, ComposableInterface
AggregateDevice	ParentInterface, AggregatableInterface

Proposal – Interface Names

A few more changes are being proposed for better clarity and uniformity:

SCAv4.0.1	SCAv4.1
Application	ApplicationManager
ApplicationDeploymentData	ApplicationDeploymentAttributes
DomainInstallation	ApplicationInstallation

Proposal – Component Names

Proposal is to use a naming convention for the name of the components

- Add “Component” at the end of the name to indicate that it is a component. For example, use “BaseComponent” instead of “ComponentBase”
- Since Component Scalability is eliminating the Resource interface for SCAv4.1, the label “Resource” should not be used anymore. For example, use “ManageableApplicationComponent” instead of “ApplicationResourceComponent”
- For the conceptual/generic component types, use “Base” as a prefix for the name of the component. For example, use “BasePlatformComponent” instead of “PlatformComponent”

Proposal – Component Names

Using the proposed convention leads to the following name changes:

SCAv4.0.1	SCAv4.1
ComponentBase	BaseComponent
ComponentFactoryComponent	BaseFactoryComponent
ApplicationResourceComponent	ManageableApplicationComponent
ComponentBaseDevice	BaseDeviceComponent
PlatformComponent	BasePlatformComponent

Proposal – Component Names

A few more changes are being proposed for better clarity and uniformity :

SCAv4.0.1	SCAv4.1
ComponentManagerComponent	??
AssemblyControllerComponent	ApplicationControllerComponent
AssemblyComponent	??
CF_ServiceComponent	ManageableServiceComponent

- The End -