SCA 4.1 Allocation Properties

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Proposal

This document contains a proposal to change the Draft SCAv4.1 specification to make it clear who has responsibility of setting a BasePlatformComponent’s ComponentType specializedInfo allocation properties.

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Recommendation

SCA v4.1 BasePlatformComponent Allocation Properties
Topics

Description of the Issue
Summary of the Proposal
Detailed Proposal

Specifications Changes (found in a word document)
  • Main Specification Changes
  • IDL Change
Description of the Issue

Two Issues:

• No component has sole responsibility of ensuring that the registering BasePlatformComponent’s ComponentType specializedInfo allocation properties exist before registering to DomainManagerComponent

• Multiple BasePlatformComponent types state the same “may statement” on setting the specializedInfo allocation properties
Summary of the Proposal

Give DeviceManagerComponent sole responsibility of ensuring that the registering BasePlatformComponent’s ComponentType specializedInfo allocation properties are set before registering to DomainManagerComponent

Remove multiple BasePlatformComponent types “may” statements of setting the specializedInfo allocation properties and place one statement at the BasePlatformComponent.

Also for the SCA User Guide add explanation about self-launching platform components could set its ComponentType’s allocation properties
Add ID statements

3.1.3.1.3.27 AllocationProperties

The AllocationProperties sequence defines a sequence of AllocationPropertyType structures that is a BasePlatformComponent supplemental information for a ComponentType’s specializedInfo. The associated ID for AllocationProperties type is ALLOCATION_PROPS_ID

typedef sequence< AllocationPropertyType> AllocationProperties;
Add SpecializedInfo Identifiers section

3.1.3.1.3.29 SpecializedInfo Identifiers
Constants are defined to be used to identify the type value for a DataType within ComponentType’s specializedInfo field.

This string constant is the identifier for AllocationsProperties type within a ComponentType’s specializedInfo

const string ALLOCATION_PROPS_ID = "ALLOCATION_PROPS";

Update Appendix C and SpecializedInfo IDL file.
3.1.3.3.2.4.3 DeviceManagerComponent Semantics

Add Requirement Statement

SCAXXX The DeviceManagerComponent shall set a ComponentType’s specializedInfo allocation properties with an id of ALLOCATION_PROPS_ID and a value of AllocationProperties for a deployed BasePlatformComponent when no AllocationProperties are supplied by the component.
3.1.3.4.2.1.3 DeviceComponent Semantics

The `ComponentType's` type field of the registering `DeviceComponent` is a `DEVICE_COMPONENT`. The `specializedInfo` field may contain a sequence of `AllocationPropertyType` structures that holds the `DeviceComponent`'s allocation properties.
3.1.3.5.2.4.3 BasePlatformComponent Semantics

Add Statements

A BasePlatformComponent may add its allocation properties to the ComponentType’s specializedInfo field, but if this is not done then the DeviceManagerComponent is responsible for adding the allocation properties.

3.1.3.5.2.6.3 ServiceComponent Semantics

The ComponentType’s type field of the registering component is assigned as a SERVICE_COMPONENT. The specializedInfo field may contain a sequence of AllocationPropertyType structures that holds the ServiceComponent’s allocation properties.

3.1.3.5.2.7.3 ManageableServiceComponent Semantics

The ComponentType’s type field of the registering component is a MANAGEABLE_SERVICE_COMPONENT. The specializedInfo field may contain a sequence of AllocationPropertyType structures that holds the ManageableServiceComponent’s allocation properties.