



oneM2M API Part2

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Outline



- Registration
- Container and contentInstance
- Discovery
- Subscription/Notification
- Group



Registration

Registration



- AE Registration – <AE> resource

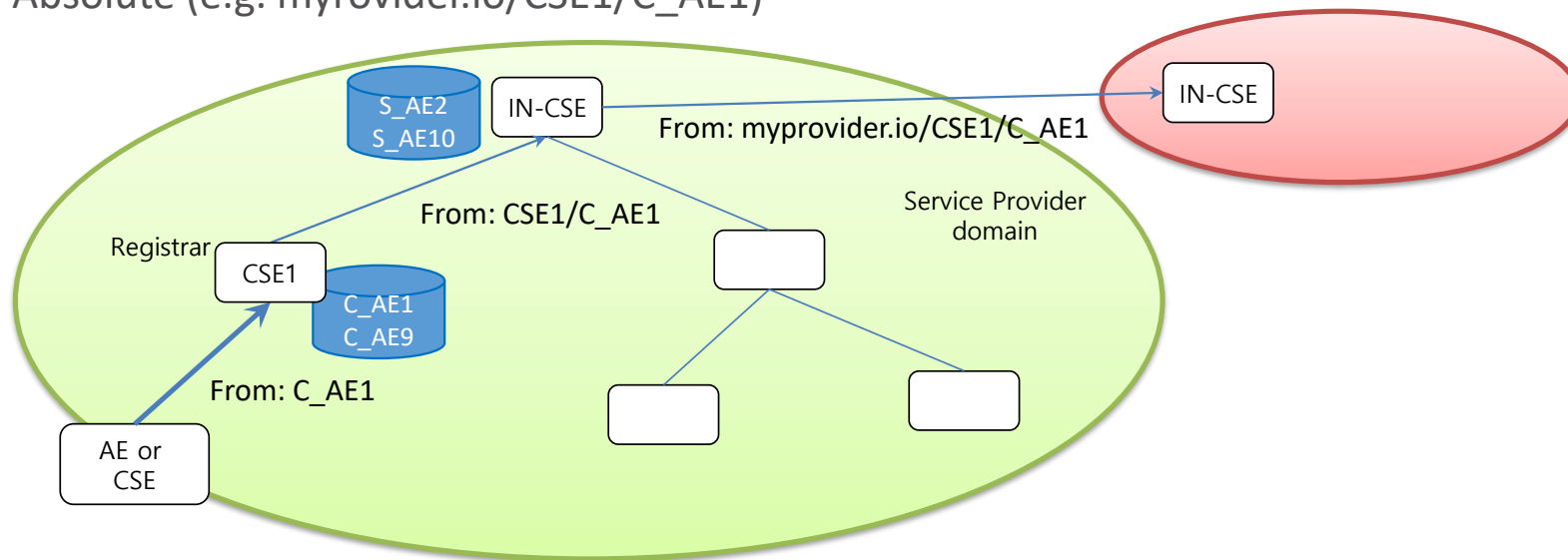
- Represents meta-information on an AE after successful registration

- Attributes

- | | | |
|---------------------------|-----------------------------|----------------------------|
| • appName | | • ontologyRef |
| • App-ID | | • requestReachability |
| • AE-ID | | • nodeLink |
| • M2M-Ext-ID | | • contentSerialization |
| • trigger-Recipient-ID | } 3GPP Network Interworking | • e2eSecInfo |
| • triggerReferenceNumber | | • activityPatternElements |
| • triggerEnable | | • sessionCapabilities |
| • pointOfAccess | | • supportedReleaseVersions |
| • registrationStatus | } Vehicle Domain Support | |
| • trackRegistrationPoints | | |

Registration

- AE Registration – AE-ID Uniqueness
 - ID uniqueness shall be supported in the context of
 - Registrar CSE (e.g. C_AE1, S_AE2)
 - SP domain (e.g. CSE1/C_AE1, S_AE2)
 - Absolute (e.g. myprovider.io/CSE1/C_AE1)

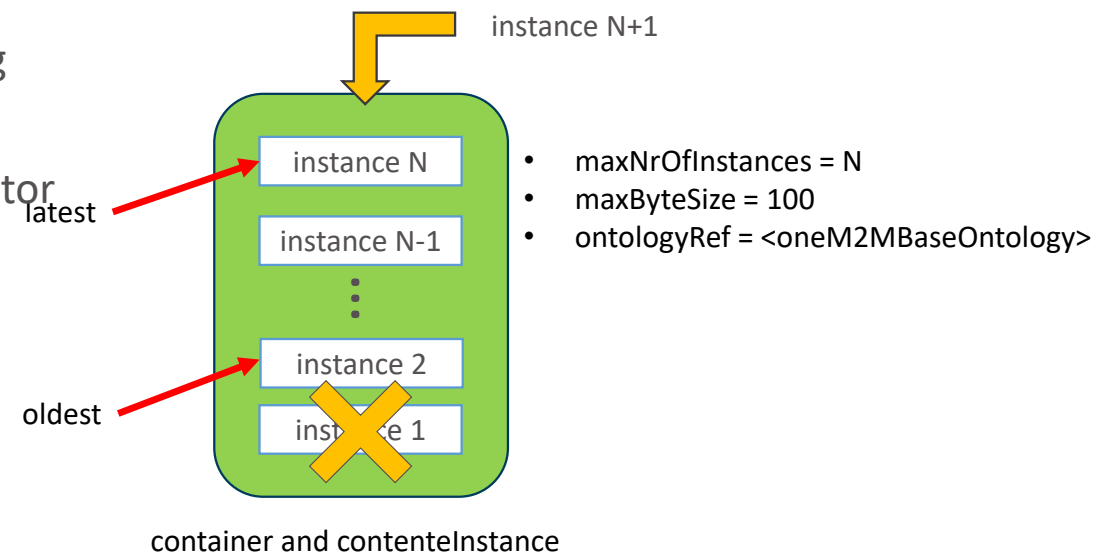




Container and contentInstance

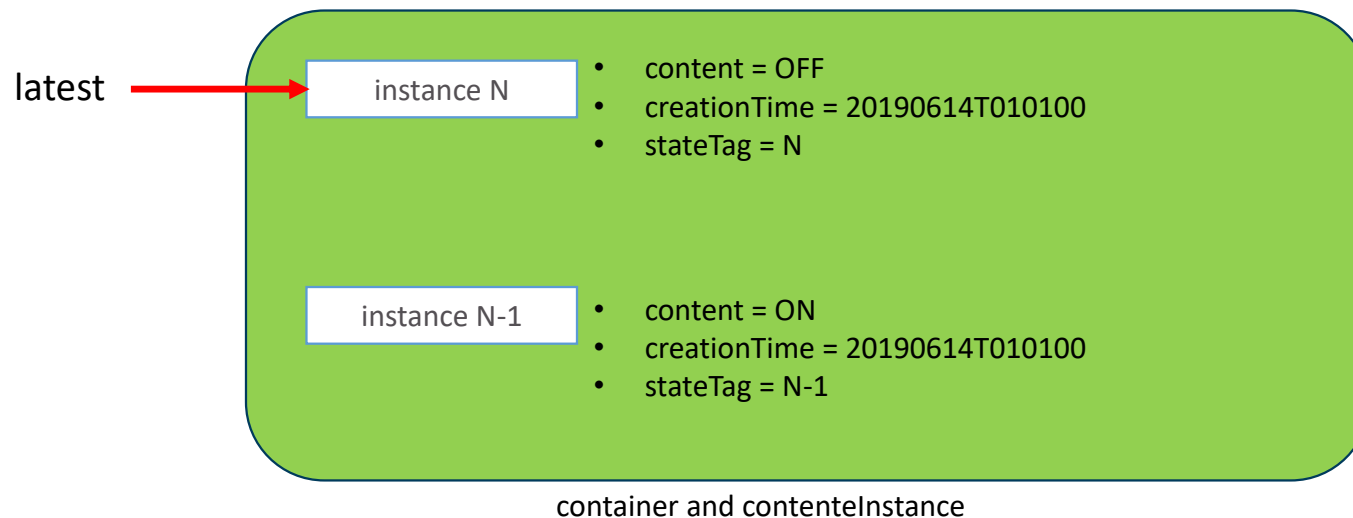
Container and contentInstance

- <container> resource
 - Represents configurations of a data container managed by CSE
 - Attributes
 - maxNrOfInstances, maxByteSize, maxInstanceAge
 - currentNrOfInstances, currentByteSize
 - locationID, ontologyRef, creator, stateTag
 - Child resources
 - container, subscription, semanticDescriptor
 - latest, oldest



Container and contentInstance

- <contentInstance> resource
 - Represents application data to be exchanged and its meta-information
 - Attributes
 - contentInfo, contentSize, contentRef, ontologyRef
 - creator, content, stateTag



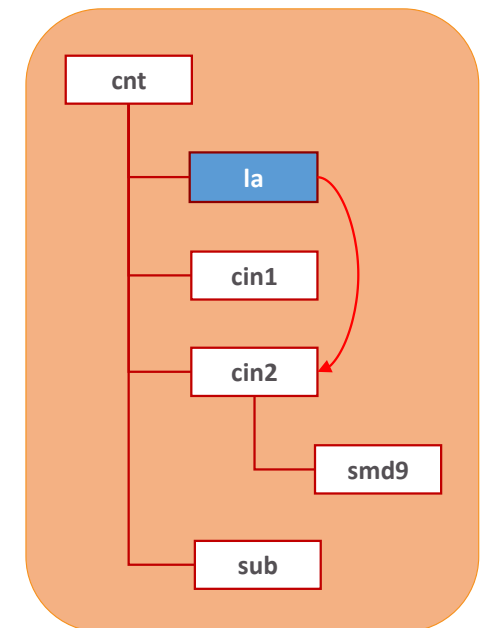


Discovery

Discovery



- Resource discovery using Filter Criteria
 - Filter conditions
 - createdBefore, createdAfter, modifiedSince, unmodifiedSince, stateTagSmaller, stateTagBigger, expireBefore, expireAfter
 - labels, labelsQuery, childLabels, parentLabels,
 - resourceType, childResourceType, parentResourceType
 - sizeAbove, sizeBelow, contentType, attribute, childAttribute, parentAttribute
 - semanticsFilter, filterOperation, contentFilterSyntax, contentFilterQuery
 - filterUsage, limit, level, offset
 - applyRelativePath
 - Discover all resources under CSEBase
 - {URL}?fu=1
 - Discover contentInstance resources only
 - {URL}?fu=1&ty=4
 - Discover contentInstance resources for 1 level depth only
 - {URL}?fu=1&ty=4&lvl=1
 - Discover resources created after a specific time
 - {URL}?fu=1&cra=20180503T144630





Subscription/Notification

Subscription/Notification



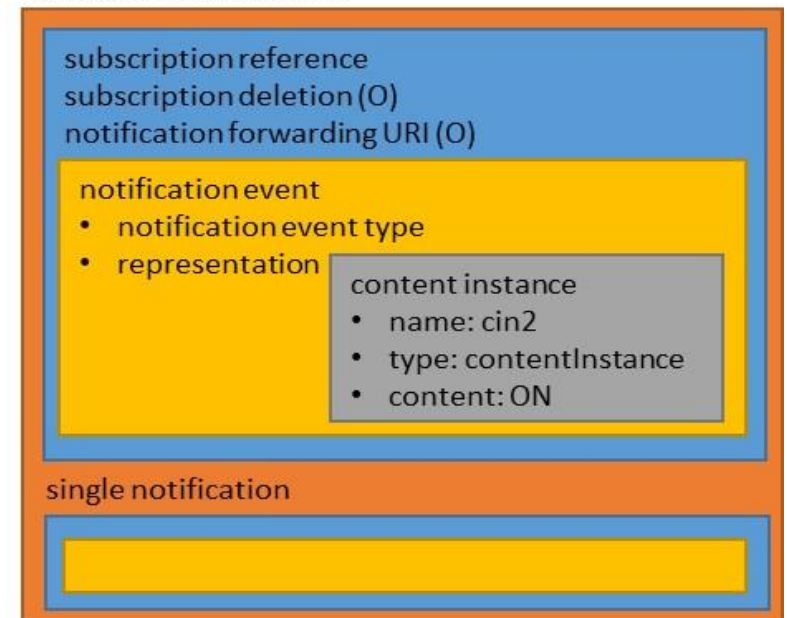
- <subscription> resource
 - represents a subscription configuration to a target or its child resource
 - attributes
 - eventNotificationCriteria, notificationURI
 - expirationCounter
 - groupId, notificationForwardingURI
 - batchNotify, rateLimit, preSubscriptionNotify, pendingNotification, latestNotify
 - notificationContentType, notificationEventCat
 - subscriberURI, associatedCrossResourceSub
 - Notification target
 - represented as notificationURI attribute
 - this attribute also can include the notification serialization format (i.e. XML, JSON, CBOR)
 - E.g. <http://mydomain/notificationHandler?ct=json>

Subscription/Notification



- <subscription> resource
 - Event Type
 - target update, target delete, child creation, child deletion, etc.
 - Notification Event Criteria
 - similar to Filter Criteria parameter, but different
- Notification (object)
 - includes a subscription reference
 - Resource identifier of the <subscription> resource generating the notification

aggregated notification





Group

Group

- <group> resource
 - represents a group of resources and its management
 - attributes
 - currentNrOfMembers
 - maxNrOfMembers
 - memberIDs
 - membersAccessControlPolicyIDs
 - memberType, memberTypeValidated, consistencyStrategy
 - groupName
 - semanticSupportIndicator
 - notifyAggregation
 - child resources
 - fanOutPoint, semanticFanOutPoint

