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| CHANGE REQUEST | |
| Meeting ID:\* | SDS #57 |
| Source:\* | Poornima Shandilya, C-DOT, [poornima@cdot.in](mailto:poornima@cdot.in)  Siddharth Trikha, C-DOT, [strikha@cdot.in](mailto:strikha@cdot.in) |
| Date:\* | 2022-11-11 |
| Reason for Change/s:\* | Missing attributes in <AE> resource as per TS-0001 |
| CR against: Release\* | Release 4 |
| CR against: WI\* | Active WI-xxxx  MNT maintenance / < Work Item number(optional)>  Is this a mirror CR? Yes  No  mirror CR number: (Note to Rapporteur - use latest agreed revision)  STE Small Technical Enhancements / < Work Item number (optional)>  Only ONE of the above shall be ticked |
| CR against: TS/TR\* | TS-0004 4.12.0 |
| Clauses \* | 7.4.5, 8.2.3 |
| Type of change: \* | Editorial change  Bug Fix or Correction  Change to existing feature or functionality  New feature or functionality  Only ONE of the above shall be ticked |
| Impacted other TS/TR(s) |  |
| Post Freeze checking:\* | This CR contains only essential changes and corrections? YES  NO  This CR may break backwards compatibility with the last approved version of the TS? YES  NO |
| Template Version: January 2017 (Do not modify) | |

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GUIDELINES for Change Requests:

Provide an informative introduction containing the problem(s) being solved, and a summary list of proposals.

Each CR should contain changes related to only one particular issue/problem.

In case of a correction, and the change apply to previous releases, a separate “mirror CR” should be posted at the same time of this CR

Mirror CR: applies only when the text, including clause numbering are exactly the same.

Companion CR: applies when the change means the same but the baselines differ in some way (e.g. clause number).

Follow the principle of completeness, where all changes related to the issue or problem within a deliverable are simultaneously proposed to be made E.g. A change impacting 5 tables should not only include a proposal to change only 3 tables. Includes any changes to references, definitions, and acronyms in the same deliverable.

Follow the drafting rules.

All pictures must be editable.

Check spelling and grammar to the extent practicable.

Use Change bars for modifications.

The change should include the current and surrounding clauses to clearly show where a change is located and to provide technical context of the proposed change. Additions of complete clauses need not show surrounding clauses as long as the proposed clause number clearly shows where the new clause is proposed to be located.

Multiple changes in a single CR shall be clearly separated by horizontal lines with embedded text such as, start of change 1, end of change 1, start of new clause, end of new clause.

When subsequent changes are made to content of a CR, then the accepted version should not show changes over changes. The accepted version of the CR should only show changes relative to the baseline approved text.

Introduction

This CR adds missing attributes in TS-0004 corresponding to Issue #34 on Git.

[Missing Attributes in <AE> resource in TS-0004 (#34) · Issues · ISSUES / Issues · GitLab (onem2m.org)](https://git.onem2m.org/issues/issues/-/issues/34)

|  |
| --- |
| *trigger-Recipient-ID* |
| *triggerReferenceNumber* |
| *externalGroupID* |

### \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Start of Change 1 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 7.4.5.1 Introduction

The <AE> resource represents information about an Application Entity known to a given Common Services Entity.

The detailed description can be found in clause 9.6.5 in oneM2M TS-0001 [6].

Table 7.4.5.1‑1: Data type definition of <AE> resource

|  |  |  |
| --- | --- | --- |
| Data Type ID | File Name | Note |
| AE | CDT-AE.xsd | XSD schema for AE resource |

Table 7.4.5.1‑2: Universal/Common Attributes of <AE> resource

|  |  |  |
| --- | --- | --- |
| Attribute Name | Request Optionality | |
| Create | Update |
| *@resourceName* | O | NP |
| *resourceType* | NP | NP |
| *resourceID* | NP | NP |
| *parentID* | NP | NP |
| *creationTime* | NP | NP |
| *lastModifiedTime* | NP | NP |
| *labels* | O | O |
| *accessControlPolicyIDs* | O | O |
| *expirationTime* | O | O |
| *dynamicAuthorizationConsultationIDs* | O | O |
| *custodian* | O | O |
| *announceTo* | O | O |
| *announcedAttribute* | O | O |
| *announceSyncType* | O | O |
| *location* | O | O |

Table 7.4.5.1‑3: Resource Specific Attributes of <AE> resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute Name | Request Optionality | | Data Type | Default Value and Constraints |
| Create | Update |
| *appName* | O | O | xs:string | No default |
| *App-ID* | M | NP | xs:string | No default |
| *AE-ID* | NP | NP | m2m:ID | No default |
| *pointOfAccess* | O | O | m2m:poaList | No default |
| *ontologyRef* | O | O | xs:anyURI | No default |
| *nodeLink* | O | O | xs:anyURI | No default |
| *requestReachability* | M | O | xs:boolean | No default |
| *contentSerialization* | O | O | m2m:serializations | No default |
| *e2eSecInfo* | O | O | m2m:e2eSecInfo | No default |
| *M2M-Ext-ID* | O | O | m2m:externalID | No default |
| *supportedReleaseVersions* | M | O | m2m:supportedReleaseVersions | No default |
| *registrationStatus* | O | O | m2m:AERegistrationStatus | No default |
| *trackRegistrationPoints* | O | O | xs:boolean | No default |
| *sessionCapabilities* | O | O | m2m:sessionCapabilities | No default |
| *triggerEnable* | O | O | xs:boolean | false |
| *activityPatternElements* | O | O | m2m:activityPatternElements | No default |
| *enableTimeCompensation* | O | O | xs:boolean | false |
| *trigger-Recipient-ID* | O | O | m2m:triggerRecipientID | No default |
| *triggerReferenceNumber* | O | O | xs:unsignedInt | No default |
| *externalGroupID* | O | O | m2m:externalID | No default |

Table 7.4.5.1‑4: Child resources of <AE> resource

|  |  |  |  |
| --- | --- | --- | --- |
| Child Resource Type | Child Resource Name | Multiplicity | Ref. to Resource Type Definition |
| <subscription> | [variable] | 0..n | Clause 7.4.8 |
| <container> | [variable] | 0..n | Clause 7.4.6 |
| <group> | [variable] | 0..n | Clause 7.4.13 |
| <accessControlPolicy> | [variable] | 0..n | Clause 7.4.2 |
| <pollingChannel> | [variable] | 0..1 | Clause 7.4.21 |
| <semanticDescriptor> | [variable] | 0..n | Clause 7.4.34 |
| <dynamicAuthorizationConsultation> | [variable] | 0..n | Clause 7.4.36 |
| <flexContainer> | [variable] | 0..n | Clause 7.4.37 |
| <timeSeries> | [variable] | 0..n | Clause 7.4.38 |
| <semanticMashupInstance> | [variable] | 0..n | Clause [7.4.50](#_7.4.50_Resource_Type) |
| <multimediaSession> | [variable] | 0..n | Clause [7.4.56](#_7.4.56_Resource_Type) |
| <triggerRequest> | [variable] | 0..n | Clause [7.4.57](#_7.4.57_Resource_Type) |
| <crossResourceSubscription> | [variable] | 0..n | Clause [7.4.58](#_7.4.58_Resource_Type) |
| <transactionMgmt> | [variable] | 0..n | Clause [7.4.60](#_7.4.60_Resource_Type) |
| <transaction> | [variable] | 0..n | Clause [7.4.61](#_7.4.61_Resource_Type) |
| <e2eQosSession> | [variable] | 0..n | Clause [7.4.69](#_7.4.69_Resource_Type) |
| <timeSyncBeacon> | [variable] | 0..n | Clause [7.4.70](#_7.4.70_Resource_Type) |
| <nwMonitoringReq> | [variable] | 0..n | Clause [7.4.71](#_7.4.71_Resource_Type) |
| <primitiveProfile> | [variable] | 0..n | Clause [7.4.72](#_7.4.72_Resource_Type) |

### \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* End of Change 1 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Start of Change 2 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Table 8.2.3‑3: Resource attribute short names (3/6)

| Attribute Name | | Occurs in | | Short Name | |
| --- | --- | --- | --- | --- | --- |
| *objectPaths* | | mgmtObj | | ***obps*** | |
| *mgmtSchema* | | mgmtObj | | ***mgs*** | |
| *nodeID* | | node | | ***ni*** | |
| *hostedCSELink* | | node | | ***hcl*** | |
| *mgmtClientAddress* | | node | | ***mgca*** | |
| *hostedAELinks* | | node | | ***hael*** | |
| *hostedServiceLinks* | | node | | ***hsl*** | |
| *networkID* | | node | | ***nid*** | |
| *roamingStatus* | | node | | ***rms*** | |
| *nodeType* | | node | | ***nty*** | |
| *requestAggregation* | | pollingChannel | | *rqag* | |
| *CSEBase* | | remoteCSE | | ***cb\**** | |
| *M2M-Ext-ID* | | remoteCSE, AE, locationPolicy, triggerRequest | | ***mei*** | |
| *M2M-Ext-IDs* | | nwMonitoringReq | | ***meis*** | |
| *Trigger-Recipient-ID* | | remoteCSE, triggerRequest, AE | | ***tri*** | |
| *requestReachability* | | remoteCSE | | ***rr*** | |
| *triggerReferenceNumber* | | remoteCSE,AE | | ***trn*** | |
| *descendantCSEs* | | remoteCSE | | ***dcse*** | |
| *multicastCapability* | | remoteCSE | | ***mtcc*** | |
| *originator* | | request, flexContainerInstance | | ***org*** | |
| *metaInformation* | | request | | ***mi*** | |
| *requestStatus* | | request | | ***rs*** | |
| *operationResult* | | request | | ***ors*** | |
| *operation* | | request | | ***op\**** | |
| *requestID* | | request | | ***rid*** | |
| *scheduleElement* | | schedule | | ***se*** | |
| *networkCoordinated* | | schedule | | ***nco*** | |
| *deviceIdentifier* | | serviceSubscribedNode | | ***di*** | |
| *ruleLinks* | | serviceSubscribedNode | | ***rlk*** | |
| *niddRequired* | | serviceSubscribedNode | | ***nrq*** | |

### ….

Table 8.2.3‑6: Resource attribute short names (6/6)

| Attribute Name | Occurs in | Short Name |
| --- | --- | --- |
| *direction* | allJoynApp | ***dir*** |
| *objectPath* | allJoynSvcObject | ***ajop*** |
| *interfaceIntrospectXmlRef* | allJoynInterface | ***ajir*** |
| *input* | allJoynMethodCall | ***inp*** |
| *callStatus* | allJoynMethodCall | ***clst*** |
| *output* | allJoynMethodCall | ***out*** |
| *currentValue* | allJoynProperty | ***crv*** |
| *requestedValue* | allJoynProperty | ***rqv*** |
| *decision* | authorizationDecision | ***dec*** |
| *status* | authorizationDecision, authorizationPolicy, authorizationInformation, m2mServiceSubscriptionProfile | ***sus*** |
| *to* | authorizationDecision, authorizationPolicy | ***to\**** |
| *from* | authorizationDecision, authorizationInformation | ***fr\**** |
| *requestedResourceType* | authorizationDecision | ***rrt*** |
| *operation* | authorizationDecision | ***op\**** |
| *filterUsage* | authorizationDecision | ***fu*** |
| *roleIDs* | authorizationDecision, authorizationInformation | ***rids\**** |
| *tokenIDs* | authorizationDecision, authorizationInformation | ***tids\**** |
| *tokens* | authorizationDecision | ***tkns\**** |
| *requestTime* | authorizationDecision | ***rtm*** |
| *originatorLocation* | authorizationDecision | ***olo*** |
| *originatorIP* | authorizationDecision | ***oip*** |
| *policies* | authorizationPolicy | ***ps*** |
| *combiningAlgorithm* | authorizationPolicy | ***ca*** |
| *ontologyFormat* | ontology | ***ontf*** |
| *ontologyContent* | ontology | ***ontc*** |
| *sourceOntology* | ontologyMapping | ***sont*** |
| *targetOntology* | ontologyMapping | ***tont*** |
| *mappingPolicy* | ontologyMapping | ***mpol*** |
| *mappingAlgorithmLinks* | ontologyMapping | ***mpal*** |
| *mappingResultFormat* | ontologyMapping | ***mprf*** |
| *mappingResult* | ontologyMapping | ***mpr*** |
| *executable* | ontologyMappingAlgorithm | ***exec*** |
| *algorithmType* | ontologyMappingAlgorithm | ***algt*** |
| *mappingThreshold* | ontologyMappingAlgorithm | ***mpth*** |
| *memberFilter* | semanticMashupJobProfile | ***mbft*** |
| *smiID* | semanticMashupJobProfile | ***miid*** |
| *inputDescriptor* | semanticMashupJobProfile | ***iptd*** |
| *outputDescriptor* | semanticMashupJobProfile | ***uptd*** |
| *functionDescriptor* | semanticMashupJobProfile | ***fucd*** |
| *smjpID* | semanticMashupInstance | ***mjid*** |
| *smjpInputParameter* | semanticMashupInstance, semanticMashupResult | ***jpin*** |
| *memberStoreType* | semanticMashupInstance | ***mst*** |
| *mashupMember* | semanticMashupInstance | ***msm*** |
| *resultGenType* | semanticMashupInstance | ***rgt*** |
| *periodForResultGen* | semanticMashupInstance | ***prg*** |
| *mashupResultFormat* | semanticMashupResult | ***mrf*** |
| *mashupResult* | semanticMashupResult | ***mrt*** |
| *ruleRepresentation* | reasoningRules | ***rrep*** |
| *ruleRepresentationFormat* | reasoningRules | ***rrepf*** |
| *reasoningType* | reasoningJobInstance | ***rtyp*** |
| *reasoningMode* | reasoningJobInstance | ***rmod*** |
| *reasoningPeriod* | reasoningJobInstance | ***rper*** |
| *factSet* | reasoningJobInstance | ***rfst*** |
| *ruleSet* | reasoningJobInstance | ***rrst*** |
| *resultRepresentation* | reasoningJobInstance | ***rsrp*** |
| *resultRepresentationFormat* | reasoningJobInstance | ***rsrpf*** |
| *numberImpactedCSEs* | AEContactList | ***nic*** |
| *externalGroupID* | LocalMulticastGroup, remoteCSE, nwMonitoringReq, AE | ***egid*** |
| *multicastAddress* | LocalMulticastGroup | ***mad*** |
| *multicastGroupFanoutTarget* | LocalMulticastGroup | ***mgft*** |
| *memberList* | LocalMulticastGroup | ***mli*** |
| *responseTarget* | LocalMulticastGroup | ***rstt*** |
| *responseTimeWindow* | LocalMulticastGroup | ***rstw*** |
| *TMGI* | LocalMulticastGroup | ***tmgi*** |
| *sessionOriginatorID* | multimediaSession | ***soi*** |
| *acceptedSessionDescriptions* | multimediaSession | ***asd*** |
| *offeredSessionDescriptions* | multimediaSession | ***osd*** |
| *sessionState* | multimediaSession | ***sst*** |
| *triggerPurpose* | triggerRequest | ***tpe*** |
| *triggerStatus* | triggerRequest | ***tst*** |
| *triggerValidityTime* | triggerRequest | ***tvt*** |
| *triggerInfoAE-ID* | triggerRequest | ***tiae*** |
| *triggerInfoAddress* | triggerRequest | ***tia*** |
| *triggerInfoOperation* | triggerRequest | ***tio*** |
| *targetedResourceType* | triggerRequest | ***tirt*** |
| *triggerReference* | triggerRequest | ***trf*** |
| *regularResourcesAsTarget* | crossResourceSubscription | ***rrat*** |
| *subscriptionResourcesAsTarget* | crossResourceSubscription | ***srat*** |
| *regularResourcesAsTargetSubscriptions* | crossResourceSubscription | ***rrats*** |
| *timeWindowType* | crossResourceSubscription | ***twt*** |
| *timeWindowSize* | crossResourceSubscription | ***tws*** |
| *eventNotificationCriteriaSet* | crossResourceSubscription | ***encs*** |
| *associatedCrossResourceSub* | subscription | ***acrs*** |
| *volumePerNode* | backgroundDataTransfer | ***vpn*** |
| *numberOfNodes* | backgroundDataTransfer | ***non*** |
| *desiredTimeWindow* | backgroundDataTransfer | ***dtw*** |
| *transferSelectionGuidance* | backgroundDataTransfer | ***tsg*** |
| *geographicInformation* | backgroundDataTransfer | ***ggi*** |
| *groupLink* | backgroundDataTransfer | ***gli*** |
| *transactionLockTime* | transactionMgmt, transaction | ***tltm*** |
| *transactionExecuteTime* | transactionMgmt, transaction | ***text*** |
| *transactionCommitTime* | transactionMgmt, transaction | ***tct*** |
| *transactionExpirationTime* | transactionMgmt | ***tept*** |
| *transactionMode* | transactionMgmt | ***tmd*** |
| *transactionLockType* | transactionMgmt, transaction | ***tltp*** |
| *transactionControl* | transactionMgmt, transaction | ***tctl*** |
| *transactionState* | transactionMgmt, transaction | ***trst*** |
| *transactionMaxRetries* | transactionMgmt | ***tmr*** |
| *transactionMgmtHandling* | transactionMgmt | ***tmh*** |
| *requestPrimitives* | transactionMgmt | ***rqps*** |
| *responsePrimitives* | transactionMgmt | ***rsps*** |
| *transactionID* | transaction | ***tid*** |
| *sessionEndpoints* | e2eQosSession | ***eqse*** |
| *e2eQosRequirements* | e2eQosSession | ***eqsr*** |
| *e2eQosPolicies* | e2eQosSession | ***eqsp*** |
| *e2eQosStatus* | e2eQosSession | ***eqss*** |
| *beaconRequester* | timeSyncBeacon | ***bcnr*** |
| *beaconCriteria* | timeSyncBeacon | ***bcnc*** |
| *beaconInterval* | timeSyncBeacon | ***bcni*** |
| *beaconThreshold* | timeSyncBeacon | ***bcnt*** |
| *beaconNotificationURIs* | timeSyncBeacon | ***bcnu*** |
| *monitorEnable* | nwMonitoringReq | ***mnen*** |
| *monitorStatus* | nwMonitoringReq | ***mnst*** |
| *failureReason* | nwMonitoringReq | ***frsn*** |
| *geographicArea* | nwMonitoringReq | ***geoa*** |
| *congestionLevel* | nwMonitoringReq | ***cgnl*** |
| *congestionStatus* | nwMonitoringReq | ***cgns*** |
| *numberOfDevices* | nwMonitoringReq | ***ndev*** |
| *notificationStatsEnable* | subscription, crossResourceSubscription | ***nse*** |
| *notificationStatsInfo* | subscription, crossResourceSubscription | ***nsi*** |
| *IDList* | primitiveProfile | ***idl*** |
| *resourceTypes* | primitiveProfile | ***rtys*** |
| *resourceIDs* | primitiveProfile | ***rsds*** |
| *releaseVersions* | primitiveProfile | ***rvs*** |
| *additions* | primitiveProfile | ***adds*** |
| *deletions* | primitiveProfile | ***dels*** |
| *applicability* | primitiveProfile | ***appl*** |
| *processStatus* | processManagement | ***prst*** |
| *processControl* | processManagement | ***prct*** |
| *currentState* | processManagement | ***cust*** |
| *activateConditions* | processManagement | ***atcos*** |
| *endConditions* | processManagement | ***encos*** |
| *initialState* | processManagement | ***inst*** |
| *stateActive* | state | ***sact*** |
| *stateAction* | state | ***stac*** |
| *stateTransitions* | state | ***sttrs*** |
| *actionPriority* | action | ***apy*** |
| *subjectResourceID* | action | ***sri*** |
| *evalCriteria* | action, dependency | ***evc*** |
| *evalMode* | action | ***evm*** |
| *evalControlParam* | action | ***ecp*** |
| *dependencies* | action | ***dep*** |
| *objectResourceID* | action | ***orc*** |
| *actionPrimitive* | action | ***apv*** |
| *input* | action | ***ipu*** |
| *actionResult* | action | ***air*** |
| *sufficient* | dependency | ***sfc*** |
| *referencedResourceID* | dependency | ***rri*** |
| *M2M-Sub-ID* | m2mServiceSubscriptionProfile | ***msui*** |
| *M2M-SS-ID* | m2mServiceSubscriptionProfile | ***mssi*** |
| *M2M-User-ID* | serviceSubscribedUserProfile | ***mui*** |
| *allowedUsers* | serviceSubscribedAppRule | ***allu*** |
| *activationTime* | m2mServiceSubscriptionProfile | ***actt*** |
| *deactivationTime* | m2mServiceSubscriptionProfile | ***dact*** |
| *serviceSubscriptionDuration* | m2mServiceSubscriptionProfile | ***ssd*** |
| *currentNumAEs* | m2mServiceSubscriptionProfile | ***cna*** |
| *currentNumNodes* | m2mServiceSubscriptionProfile | ***cnn*** |
| *maxNumAEs* | m2mServiceSubscriptionProfile, serviceSubscribedUserProfile | ***mna*** |
| *maxNumNodes* | m2mServiceSubscriptionProfile, serviceSubscribedUserProfile | ***mnns*** |
| *maxNumBytes* | m2mServiceSubscriptionProfile, serviceSubscribedUserProfile | ***mnb*** |
| *maxRequestRate* | m2mServiceSubscriptionProfile, serviceSubscribedUserProfile | ***mrr*** |
| *maxNumContainers* | m2mServiceSubscriptionProfile, serviceSubscribedUserProfile | ***mnc*** |
| *maxNumInstancesPerContainer* | m2mServiceSubscriptionProfile, serviceSubscribedUserProfile | ***mnis*** |
| *maxNumTimeSeries* | m2mServiceSubscriptionProfile, serviceSubscribedUserProfile | ***mnt*** |
| *maxNumInstancesPerTimeSeries* | m2mServiceSubscriptionProfile, serviceSubscribedUserProfile | ***mnit*** |
| *maxMembersPerGroup* | m2mServiceSubscriptionProfile, serviceSubscribedUserProfile | ***mmg*** |
| *maxNotificationRate* | m2mServiceSubscriptionProfile, serviceSubscribedUserProfile | ***mnr*** |
| *maxNumFlexContainers* | m2mServiceSubscriptionProfile, serviceSubscribedUserProfile | ***mnf*** |
| *maxNumInstancesPerFlexContainer* | m2mServiceSubscriptionProfile, serviceSubscribedUserProfile | ***mnif*** |
| *defaultAccessControlPrivileges* | m2mServiceSubscriptionProfile, serviceSubscribedUserProfile | ***dacp*** |
| *campaignEnabled* | softwareCampaign | ***swce*** |
| *campaignStatus* | softwareCampaign | ***swcs*** |
| *softwareTargets* | softwareCampaign | ***swts*** |
| *softwareTriggerCriteria* | softwareCampaign | ***swtc*** |
| *softwareOperation* | softwareCampaign | ***swop*** |
| *softwareLinks* | softwareCampaign | ***swlk*** |
| *aggregatedSoftwareStatus* | softwareCampaign | ***asws*** |
| *individualSoftwareStatuses* | softwareCampaign | ***isws*** |
| NOTE: \* marked short names have been already assigned in Table 8.2.2-1. | | |

### \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* End of Change 2 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*