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| CHANGE REQUEST |
| Meeting ID:\* | TDE 42 |
| Source:\* | Bob Flynn, Convida Wireless , Bob.Flynn@convidawireless.com |
| Date:\* | 2019-08-27 |
| Reason for Change/s:\* | ADN Profiles |
| CR against: Release\* | Rel-3 |
| CR against: WI\* | [ ]  Active <Work Item number> [x]  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-0025 v3.1.0 |
| Clauses \* | 5.4.3 |
| Type of change: \* | [ ]  Editorial change[ ]  Bug Fix or Correction[x]  Change to existing feature or functionality[ ]  New feature or functionalityOnly ONE of the above shall be ticked |
| Other TS/TR(s) impacted | None |
| Post Freeze checking:\* | This CR contains only essential changes and corrections? YES [x]  NO [ ] This CR may break backwards compatibility with the last approved version of the TS? YES [ ]  NO [ ]  |
| Template Version: January 2019 (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

While working on upper tester implementation testing the ATIS open soure AE code that models a sensor application we determined that the ADN Profile 3 should not require subscription test cases for a sensor app. CHANGE 1

Also, we determined that there should be an ADN profile for an actuator profile. CHANGE 2

The profiles are different from the contrained profiles in that the constrained profiles allow for the possibility that a supplementatl application is creating the containers and subscriptions. In these profiles, the ADN creates all of the required resources.

R01 – During our first review we identified that the new ADN profile 5 is the same as the constrained sensor profile. This revision removes Change 2 and Change 3 makes updates to the constrained sensor profile

-------------------------------------------------- Start of Change 1--------------------------------------------------

### 5.4.3 Fundamental feature sets

Content sharing resources are used for storing the measurements of sensing device. Whenever there is data measured from the sensing device, the data will be sent to the CSE for storage in a content sharing resource from the originator where the encoded measurement is included within the payload of the resource.

oneM2M sensing service profile consists of minimum features to implement Data Management for Container and ContentInstance functionality shown in Table 7.4.3-1 plus the features from at least one of Table 5.4.3-2 or Table 5.4.3-3 or Table 5.4.3-4.

Table 5.4.3-1: Fundamental feature set for ADN profile 3

|  |  |  |  |
| --- | --- | --- | --- |
| **Function** | **Feature Set** | **Feature** | **Remark** |
| *GEN* | *AE/GEN/00001* | At least one | Support one of the format of resource identification |
| *AE/GEN/00002* | *AE/GEN/00002/00001* | Support Create request targeting one resource |
| *REG* | *AE/REG/00002* | *AE/REG/00002/00001* | Create <AE> with mandatory attributes |
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Table 5.4.3-2: Fundamental feature set for ADN profile 3

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| --- | --- | --- | --- |
| **Function** | **Feature Set** | **Feature** | **Remark** |
| *DMR* | *AE/DMR/00001* | *AE/DMR/00001/00001* | Create <container> with no attribute set |
| *AE/DMR/00002* | *AE/DMR/00002/00001* | Create <contentInstance> with mandatory attributes |

Table 5.4.3-3: Fundamental feature set for ADN profile 3

|  |  |  |  |
| --- | --- | --- | --- |
| **Function** | **Feature Set** | **Feature** | **Remark** |
| *DMR* | *AE/DMR/00003* | *AE/DMR/00003/00001* | Create <flexcontainer>  |
| *AE/DMR/00003/00002* | Update <flexcontainer>  |

Table 5.4.3-4: Fundamental feature set for ADN profile 3

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| --- | --- | --- | --- |
| **Function** | **Feature Set** | **Feature** | **Remark** |
| *DMR* | *AE/DMR/00004* | *AE/DMR/00004/00001* | Create <timeSeries>  |
| *AE/DMR/00005* | *AE/DMR/00005/00001* | Create <timeSeriesInstance> with mandatory attributes |

-------------------------------------------------- End of Change 1---------------------------------------------------

-------------------------------------------------- Start of Change 2--------------------------------------------------

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-------------------------------------------------- End of Change 2---------------------------------------------------

-------------------------------------------------- Start of Change 3---------------------------------------------------

## 5.3 Actuator device as ADN

### 5.3.1 Profile description

This profile defines a constrained actuator that may be powered by battery and intended to be used for years after deployment without any human interference for maintenance. Therefore, the function of constraint actuator need to be very limited.

An actuator is intended to be receiving control command from CSE via notification. The actuator then actuates according to the control command.

The actuator needs to receive control commands. As a result, the actuator needs to be request reachable to receive notifications or t0 be able to start a polling channel.

### 5.3.2 Profile usage examples

This profile applies to devices that receive commands from an external IoT application. For example, manufacturer-A designs a smart socket with oneM2M actuating service, he can refer to this profile to check the fundamental features that are required in the implementation. When manufacturer-B designs a smart socket complying with this profile, these smart sockets produced from different manufacturers are interoperable and able to work together to implement complex tasks.

5.3.3 Fundamental feature sets

At least one type of data sharing resource is used for storing the commands to the actuating device. Whenever there is a command for the device the command will be sent to the CSE for storage to a data sharing resource where the actuator has created a <subscription>. A notification is generated that is directly delivered to the actuator device or the device retrieves the notification using “long polling”.

oneM2M actuating service profile consists of minimum features shown in Table 5.3.3-1 plus the features from at least one of Table 5.3.3-2 or Table 5.3.3-3 and the features from at least one of Table 5.3.3-4 or Table 5.3.3-5.

Table 5.3.3-1: Fundamental feature sets for actuator device as ADN

|  |  |  |  |
| --- | --- | --- | --- |
| **Function** | **Feature Set** | **Feature** | **Remark** |
| *GEN* | *AE/GEN/00001* | At least one | Support one of the format of resource identification  |
| *GEN* | *AE/GEN/00002* | *AE/GEN/00002/00001* | Support Create request targeting one resource |
| *REG* | *AE/REG/00002* | *AE/REG/00002/00001* | Create <AE> with mandatory attributes[2] |
| *REG* | *AE/REG/00002* | *AE/REG/00002/00003* | Create <AE> with *pointOfAccess* |
| *SUB* | *AE/SUB/00001* | *AE/SUB/00001/00001* | Create <subscription> with mandatory attributes [2] |

Table 5.3.3-2: Container feature set for actuator device

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| --- | --- | --- | --- |
| **Function** | **Feature Set** | **Feature** | **Remark** |
| *DMR* | *AE/DMR/00001* | *AE/DMR/00001/00001* | Create <container> with no attribute set |
| *AE/DMR/00002* | *AE/DMR/00002/00001* | Create <contentInstance> with mandatory attributes |

Table 5.3.3-3: FlexContainer feature set for actuator device

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| --- | --- | --- | --- |
| **Function** | **Feature Set** | **Feature** | **Remark** |
| *DMR* | *AE/DMR/00003* | *AE/DMR/00003/00001* | Create <flexcontainer>  |
| *AE/DMR/00003/00002* | Update <flexcontainer>  |
| *AE/DMR/00003/00003* | Retrieve <flexcontainer>  |
| *AE/DMR/00003/00004* | Delete <flexContainer>  |

Table 5.3.3-4: Notification feature sets for actuator as ADN

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| --- | --- | --- | --- |
| **Function** | **Feature Set** | **Feature** | **Remark** |
| *SUB* | *AE/SUB/00004* | *AE/SUB/00004/00001* | Receiving a notification |

Table 5.3.3-5: Polling Channel feature sets for actuator as ADN

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| --- | --- | --- | --- |
| **Function** | **Feature Set** | **Feature** | **Remark** |
| *PCH* | *GE/PCH/00001* | GE/PCH/00001/00001GE/PCH/00001/00002GE/PCH/00001/00003 | Polling Channel resource management |
| *PCH* | *GE/PCH/00002* | *GE/PCH/00002/00001* | Long Polling Procedure |

-------------------------------------------------- End of Change 3---------------------------------------------------