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| Source:\* | Ting Martin MIAO, KETI, novamartin@keti.re.krIl-Yeup Ahn, KETI, iyahn@keti.krSeungMyeong Jeong, KETI, sm.jeong@keti.re.krSungchan Choi, KETI, csc@keti.re.krJaeho Kim, KETI, jhkim@keti.re.kr |
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Introduction

We propose to define a sensing sevice profile containing fundamental and extendable features for normal sensors or software components that desire to implement oneM2M sensing services.

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

# 7 Product Profiles

## 7.4 ADN Profile X

### 7.4.1 Profile description

This profile defines features for normal sensor devices or software components that desire to implement oneM2M sensing services. The sensing services such as monitoring temperature, detecting illumination, collection of location information etc are characterized with collecting and uploading measurement data into a destination e.g. a repository. The scope of normal sensor devices cover those that are powered by electricity power or by battery that can be easily changed when the battery is off and have rich resources compared to resource-constraint sensor devices.

The sensing service profile defines a set of features required to implement sensing functionalities including creation and update of <container>, creation of <contentInstance> etc.

### 7.4.2 Profile usage examples

This profile applies to normal sensors deployed in non critial environments have relative rich resources and are powered by electricity power or by battery that can be easily changed. This profile can also apply to software components that implements sensing services.

Taking smart socket as an example, when a manufacturer-A decides to design a smart socket with oneM2M sensing service, he can refer to the Sensing Service Profile to check the fundamental features that are required to implement. The fundamental features for Sensing Service Profile are defined in Section 7.4.3 Feature Set. When another manufacturer-B also designs a smart socket complying with the Sensing Service Profile, these two smart sockets produced from two different manufacturers are interoperable potentially to work together to implement complex tasks.

### 7.4.3 Fundamental feature sets

Container is used for storing the measurements of sensing device and whenever there is data measured from the sensing device, the data will be sent to the CSE for storage by sending a <contentInstance> create request from the originator where the encoded measurement is included within the payload of the <contentInstance> create request.

oneM2M sensing service profile consists of minimum features to implement Data Management for Container and ContentInstance functionality shown in Table 7.4.3.1.

*<The clause will just include the mandatory features and the optional feature that are essential for the profile. All features in this clause shall be implemented to be certifed>*

Table 7.4.3.1 Fundamental feature set for sensing service profile

|  |  |  |  |
| --- | --- | --- | --- |
| ***No.*** | ***CSF*** | ***Sub-function*** | ***Feature*** |
| **1** | Registration | AE Registration | Creation of <AE> resource with mandatory attributes |
| **2** | DMR | Data Management of Container | Creation of <container> resource with mandatory attributes |
| Data Management of ContentInstance | Creation of <contentInstance> resource with mandatory attributes |

Table 7.4.3.1 Fundamental feature set for sensing service profile

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Editor’s Node: The table is suggest to the feature catalogue. Will need to be updated with the feature IDs once the feature definition is done. The features targeting on optional attributes will be addressed in the futher extension.

### 7.4.4 Extendable feature sets

*<The clause will include the optional features. The features in this clause is recommended and suggested by the profile, the implementer may choose to implement or not. The feature is not essential for certification of the profile.>*

*Editor’s Node: Extendable feature sets can be added into a new service profile table for extension.*

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