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| --- | --- |
| CHANGE REQUEST | |
| Meeting ID:\* |  |
| Source:\* |  |
| Date:\* |  |
| Reason for Change/s:\* |  |
| CR against: Release\* |  |
| CR against: WI\* | Active <WI-0119>  MNT maintenance / < Work Item number(optional)>  Is this a mirror CR? Yes  No  mirror CR number:  STE Small Technical Enhancements / < Work Item number (optional)>  Only ONE of the above shall be ticked |
| CR against: TS/TR\* |  |
| Clauses \* |  |
| 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 |
| Other TS/TR(s) impacted | None |
| 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 2019 (do not modify) | |

**oneM2M Notice**

The document to which this cover statement is attached is submitted to oneM2M. Participation in, or attendance at, any activity of oneM2M, constitutes acceptance of and agreement to be bound by terms of the Working Procedures and the Partnership Agreement, including the Intellectual Property Rights (IPR) Principles Governing oneM2M Work found in Annex 1 of the Partnership Agreement.

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

Initial draft with table of contents

<https://git.onem2m.org/specifications/tr-0076/-/merge_requests/1>

----------------------- Start of change 1 -----------------------

---a/TR-0076-Integrating\_NGSI-LD\_API\_in\_oneM2M.md  
+++b/TR-0076-Integrating\_NGSI-LD\_API\_in\_oneM2M.md

@@ -1,4 +1,3 @@

![oneM2M logo](media/logo.png)

@@ -46,12 +45,15 @@ NO REPRESENTATION OR WARRANTY IS MADE THAT THE INFORMATION IS TECHNICALLY ACCURA

# Contents

# 1 Scope

The present document ...

The present document discusses how key features of the NGSI-LD API can be integrated in oneM2M.

`EXAMPLE: The present document provides the necessary adaptions to the endorsed document.`

In particular, the present document

- studies the impacts and necessary changes to oneM2M Specifications in particular with regards to the subsequent bulltets

- describes the additional functionality that the integration of NGSI-LD API and its related functionality can bring to the oneM2M standard, including the resulting integrated use cases.

- studies solutions for the architectural integration of NGSI-LD and its related functionalities into oneM2M, in particular with respect to oneM2M reference points and the existing oneM2M Common Service Functions.

- studies the mapping of the information stored in oneM2M resources to the NGSI-LD information model. This includes, but is not limited to the current oneM2M semantic models (in particular SDT and the oneM2M base ontology, including SAREF integration) to the NGSI-LD information model, with the goal of making it available through an integration of NGSI-LD API and the Mca reference point. This may lead to an evolution of the current NGSI-LD and Mca, and the related information models.

- studies the integration of NGSI-LD into oneM2Mâs management and security frameworks, in particular for registration, authentication, access control and device management.

<mark>The Scope shall not contain requirements.</mark>

# 2 References

@@ -74,7 +76,8 @@ Not applicable.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- <a name="\_ref\_i.1">[i.1]</a> oneM2M Drafting Rules [https://member.onem2m.org/static\_Pages/others/Rules\_Pages/oneM2M-Drafting-Rules-V1%202%202.doc](https://member.onem2m.org/static\_Pages/others/Rules\_Pages/oneM2M-Drafting-Rules-V1%202%202.doc)

- <a name="\_ref\_i.2">[i.2]</a> ETSI GS CIM 009: "Context Information Management (CIM); NGSI-LD API" [https://www.etsi.org/deliver/etsi\_gs/CIM/001\_099/009/01.08.01\_60/gs\_CIM009v010801p.pdf](https://www.etsi.org/deliver/etsi\_gs/CIM/001\_099/009/01.08.01\_60/gs\_CIM009v010801p.pdf)

- <a name="\_ref\_i.3">[i.3]</a> ETSI GS CIM 006: "Context Information Management (CIM); Information Model" [https://www.etsi.org/deliver/etsi\_gs/CIM/001\_099/006/01.03.01\_60/gs\_CIM006v010301p.pdf](https://www.etsi.org/deliver/etsi\_gs/CIM/001\_099/006/01.03.01\_60/gs\_CIM006v010301p.pdf)

# 3 Definition of terms, symbols and abbreviations

<mark>Delete from the above heading the word(s) which is/are not applicable.</mark>

@@ -133,12 +136,44 @@ For the purposes of the present document, the [following] abbreviations [given i

The key words "Shall", "Shall not", "May", "Need not", "Should", "Should not" in this document are to be interpreted as described in the oneM2M Drafting Rules <a href="#\_ref\_i.1">[i.1]</a>

# 5 User defined clause(s) from here onwards

&lt;Text>

# 5 Introduction to NGSI-LD API and NGSI-LD Information Model

## 5.1 Motivation and key concepts

## 5.1 User defined subdivisions of clause(s) from here onwards

&lt;Text>

## 5.2 NGSI-LD Information Model

## 5.3 NGSI-LD API

### 5.3.1 Overview

### 5.3.2 Query operations

### 5.3.2 Subscription/notification operations

### 5.3.3 Management operations

## 5.4 Architectural considerations

# 6 Assessment of additional functionality brought by NGSI-LD

<mark>Based on the introduction in clause 5, description of the additional functionality that the integration of NGSI-LD API and its related functionality can bring to the oneM2M standard, including the resulting integrated use cases. </mark>

# 7 Architectural integration of NGSI-LD into oneM2M

<mark>Study solutions for the architectural integration of NGSI-LD and its related functionalities into oneM2M, in particular with respect to oneM2M reference points and the existing oneM2M Common Service Functions.</mark>

# 8 Mapping of information stored in oneM2M resources to the NGSI-LD information model

<mark>Study the mapping of the information stored in oneM2M resources to the NGSI-LD information model. This includes, but is not limited to the current oneM2M semantic models (in particular SDT and the oneM2M base ontology, including SAREF integration) to the NGSI-LD information model, with the goal of making it available through an integration of NGSI-LD API and the Mca reference point. This may lead to an evolution of the current NGSI-LD and Mca, and the related information models.</mark>

# 9 Integration of NGSI-LD into oneM2M's management and security frameworks

<mark>Study the integration of NGSI-LD into oneM2Mâs management and security frameworks, in particular for registration, authentication, access control and device management.</mark>

# 10 Overall impact assessment and recommendations

<mark>Study the impacts and necessary changes to oneM2M Specifications </mark>

<mark>The following text is to be used when appropriate:</mark>

@@ -210,7 +245,7 @@ The key words "Shall", "Shall not", "May", "Need not", "Should", "Should not" in

|Draft history (to be removed on publication) |Draft history (to be removed on publication) |Draft history (to be removed on publication) |

|-|-|-|

|V1.1.1 |&lt;yyyy-mm-dd> |&lt;CR ID> applied - &lt;Summary of changes> |

|V5.0.1 | 2024-04-17 | Scope and Table of Contents |

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----------------------- End of change 1 -----------------------