**3GPP TSG-SA5 Meeting #144-e *S5-224252***

**e-meeting, 27 June - 1 July 2022**

**Source: Nokia, Nokia Shanghai Bell**

**Title: pCR 28.831 Add potential solutions for key issue Targeted notification subscription**

**Document for: Approval**

**Agenda Item: 6.8.2.3 - FS\_eSBMAe\_WoP#4**

# 1 Decision/action requested

***The group is requested to discuss and approve the pCR below***

# 2 References

[1] 3GPP TS 28.831: " Management and orchestration; Study on basic Service-Based Management Architecture (SBMA) enabler enhancements"

# 3 Rationale

None.

# 4 Detailed proposal

The following changes are proposed for TR 28.831[1].

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| **Begin of modifications** |

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] XML Path Language (XPath), Version 1.0, W3C Recommendation 16 November 1999 (Status updated October 2016), (https://www.w3.org/TR/1999/REC-xpath-19991116/)

[3] XML Path Language (XPath) 2.0, W3C Recommendation 14 December 2010 (Link errors corrected 3 January 2011; Status updated October 2016), (https://www.w3.org/TR/xpath20/)

[4] XML Path Language (XPath) 3.1, W3C Recommendation 21 March 2017 (<https://www.w3.org/TR/xpath-31/>)

[5] IETF RFC 6901: "JavaScript Object Notation (JSON) Pointer".

[6] IETF Internet-Draft: "JSONPath: Query expressions for JSON"; draft-ietf-jsonpath-base-05; April 2022 (https://datatracker.ietf.org/doc/html/draft-ietf-jsonpath-base-05).

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| **Next modification** |

### 4.2.5 Potential solutions

#### 4.2.5.1 Introduction

Solutions to the potential requirements in clause 4.2.4 need to be able to conditionally select nodes in node trees.

Note: The NRM is a node tree. Node types are objects and attributes. The tree is defined by the name-containment relationships.

The target is to use an existing notation as solution, ideally without any modifications. The following notations are analyzed for use with JSON defined NRMs:

* XPath 1.0 [2]
* XPath 2.0 [3]
* XPath 3.1 [4]
* JSON Pointer [5]
* JSONPath [6]

The following notations are analyzed for use with YANG defined NRMs:

* XPath 1.0 [2]
* XPath 2.0 [3]
* XPath 3.1 [4]

All notations listed above are quite powerful. Only a subset is required to support the potential requirements documented in clause 4.2.4. This subset is identified in the following clauses.

*Editor's note: It is ffs if a stage 2 definition is required, that is more detailed than the requirements, and from which the subset can be identified in a direct mapping.*

*Editor's note: XPath does not work on XML. Instead, it works on an own data model defined in XPath 1.0 [2], clause 5. This clause also describes the mapping of an XML document to the XPath model. The mapping of a JSON document to the XPath model is ffs. Alternatively, some mapping between a JSON document to a XML document needs to be looked at.*

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| **End of modifications** |