**3GPP TSG CT WG3 Meeting #138 *C3-246125r2***

**Orlando, U.S; 18th – 22nd November 2024**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.552** | **CR** | **0129** | **rev** | **1** | **Current version:** | **19.0.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Procedure for Data Collection from the UE Application | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | ZTE | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eNetAE19 | | | | |  | ***Date:*** | | | 2024-11-11 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Procedure for Data Collection from the UE Application is defined in 23.288, but it’s missing in 29.552. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add DCAF as a Data source. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | It’s not defined in this specification how the NWDAF perform Data Collection from the UE Application. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 1, 3.3, 4.2 | | | | | | | | |
|  | | 8, | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

\*\*\* 1st Change \*\*\*

# 1 Scope

The present document specifies detailed call flows of Network Data Analytics and the related data collection over the Nnwdaf, Nsmf, Nnsacf, Namf, Nnrf, Nnssf, Nnef, Naf, Ndccf, Nadrf, Nmfaf, Nudm, Nupf and Ngmlc service-based interfaces and/or from OAM, and their relationship with the flow level signalling in 5G system.

NOTE 1: The call flows depicted in this Technical Specification do not cover all traffic cases.

NOTE 2: There is no data collected from the PCF by the NWDAF defined in this Release of the specification.

The stage 2 definition and procedures of Network Data Analytics are contained in 3GPP TS 23.288 [2] and 3GPP TS 23.502 [3]. The 5G System Architecture is defined in 3GPP TS 23.501 [4].

Detailed definitions of the involved services are provided in 3GPP TS 29.520 [5], 3GPP TS 29.508 [6], 3GPP TS 29.554 [8], 3GPP TS 29.522 [10], 3GPP TS 29.591 [11], 3GPP TS 29.517 [12], 3GPP TS 29.551 [39], 3GPP TS 29.574 [15], 3GPP TS 29.575 [16], 3GPP TS 29.576 [17], 3GPP TS 29.503 [22], 3GPP TS 29.510 [23], 3GPP TS 29.507 [24], 3GPP TS 29.512 [25], 3GPP TS 29.564 [40], 3GPP TS 29.515 [41] and 3GPP TS 29.244 [45] for NF service-based interfaces, 3GPP TS 28.552 [27], 3GPP TS 28.532 [19], 3GPP TS 28.533 [28], 3GPP TS 28.550 [31] , 3GPP TS 28.554 [30], 3GPP TS 36.331 [34], 3GPP TS 37.320 [29], 3GPP TS 38.331 [33] and 3GPP TS 38.215 [35] for data collection from OAM.

The Technical Realization of the Service Based Architecture and the Principles and Guidelines for Services Definition of the 5G System are specified in 3GPP TS 29.500 [13] and 3GPP TS 29.501 [14].

\*\*\* 2nd Change \*\*\*

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

ADRF Analytics Data Repository Function

AF Application Function

AMF Access and Mobility Management Function

AnLF Analytics Logical Function

CEF Charging Enablement Function

DCAF Data Collection Application Function

DCCF Data Collection Coordination Function

FL Federated Learning

GMLC Gateway Mobile Location Centre

LMF Location Management Function

MDAF Management Data Analytics Function

MDT Minimization of Drive Tests

MFAF Messaging Framework Adaptor Function

ML Machine Learning

MTLF Model Training Logical Function

NEF Network Exposure Function

NRF Network Repository Function

NSACF Network Slice Admission Control Function

NSSF Network Slice Selection Function

NWDAF Network Data Analytics Function

OAM Operation, Administration, and Maintenance

PCF Policy Control Function

RE-NWDAF Roaming Exchange NWDAF

SMF Session Management Function

UDM Unified Data Management

UPF User Plane Function

\*\*\* 3rd Change \*\*\*

## 4.2 Data Collection

As depicted in Figure 4.2-1, the 5G System architecture allows NWDAF to collect data from any 5GC NF (e.g. AMF, SMF), OAM and/or MDAF directly or via DCCF, DCCF together with ADRF and/or MFAF, or via NWDAF in non-roaming case. The roaming architecture for data collection is defined in clause 4.5.



Figure 4.2-1: Data Collection Architecture

When DCCF, ADRF, MFAF or NWDAF hosting DCCF are present in the network, whether the NWDAF directly contacts the Data Source NF or goes via the DCCF, or NWDAF hosting DCCF is based on configuration of the NWDAF.

The Data Source NF may be AMF, SMF, UDM, UPF, GMLC, AF/DCAF, NSACF, NRF and/or NEF/NEF(PFDF) with the related data collection procedures described in clause 5.5. If the Data Source is OAM, the NWDAF may collect relevant management data from the services in the OAM as configured by the PLMN operator with NG RAN or 5GC performance measurements as defined in TS 28.552 [27] and 5G End to end KPIs as defined in TS 28.554 [30]. The NWDAF may use the OAM services e.g. generic performance assurance and fault supervision management services as defined in TS 28.532 [19], PM (Performance Management) services as defined in TS 28.550 [31] and/or FS (Fault Supervision) services as defined in TS 28.545 [37]. The procedure for data collection from OAM is defined in clause 6.2.3.2 of TS 23.288 [2]. The NWDAF may collect the analysis results from MDAF, e.g. service experience and energy saving state analysis and/or end-to-end latency analysis in TS 28.104 [38]. The procedure for analytics collection from MDAF is defined in clause 6.2.14.2 of TS 23.288 [2]. Before NWDAF requests analytics from the MDA Management Function, the NWDAF firstly discovers the MDAF via the MnS discovery service producer as defined in clause 5 of TS 28.537 [42].

For the specific analytics event, the applicable Data Source NF(s) and the related data collection procedures and scope are described in the corresponding analytics event subclause within clause 5.7.

\*\*\* End of Changes \*\*\*