**3GPP TSG- Meeting # *07***

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **52** | **CR** | **607** | **rev** | **1** | **Current version:** |  |  |
|  | | | | | | | | |
| *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:*** | Add use case on NWDAF roaming analytics | | | | | | | | | |
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| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NWDAF\_OAM\_Ph2 | | | | |  | ***Date:*** | | | 3 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | |  |
|  | *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:*** | | In TS 23.288 (SA2), four service operations are specified under “NWDAF Roaming Analytics” that enables the consumer to request or to subscribe or to unsubscribe for roaming analytics generated by the RE-NWDAF. These service operations include the following:   * *Nnwdaf\_RoamingAnalytics\_Subscribe service operation* * *Nnwdaf\_RoamingAnalytics\_Unsubscribe service operation* * *Nnwdaf\_RoamingAnalytics\_Notify service operation* * *Nnwdaf\_RoamingAnalytics\_Request service operation*   The number of roaming analytics subscriptions, requests, notifications, and responses are some of the basic statistic information to monitor the performance of RE-NWDAF. These basic measurements can be used to derive the other performance of RE-NWDAF such as roaming analytics service successful and/or failed rate, etc. With these measurements, operators can analyze and evaluate the performance of the RE-NWDAF. Operators can use these measurements to take management actions for configuration, resource allocation, load balance and placement purposes. | | | | | | | | |
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| ***Summary of change:*** | | A new use case on NWDAF roaming analytics is introduced in the Annex. | | | | | | | | |
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| ***Consequences if not approved:*** | | Operator will not be able to monitor the performance of roaming analytics service operations and to take RE-NWDAF management actions for configuration, resource allocation, load balancing and placement purposes. | | | | | | | | |
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| ***Clauses affected:*** | | A | | | | | | | | |
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|  | | **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:*** | |  | | | | | | | | |
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| ***This CR's revision history:*** | | S5-246107 is a revision of S5-245498 | | | | | | | | |

***Start of First change***

Annex A (informative):  
Use cases for performance measurements

A.Y Monitoring of RE-NWDAF roaming analytics

As described in TS 23.288 [59], an NWDAF registered with roaming exchange capability (RE-NWDAF) may be discovered and used (by other NWDAFs) as an entry point between PLMNs to exchange analytics. The home roaming exchange NWDAF (H-RE-NWDAF) or visitor roaming exchange NWDAF (V-RE-NWDAF) needs to provide the Nnwdaf\_RoamingAnalytics to exchange analytics. NWDAFs, with and without "roaming exchange capability", exhibit different behaviours. The NWDAF with "roaming exchange capability" necessitates extra interactions with NWDAFs from other operators. To better configure and identify this capability, it is necessary to provide information on whether one or more NWDAFs with roaming exchange capability are deployed within the PLMN.

Besides, based on TS 23.288 [59], RE-NWDAF is also able to act as an entry point for Nnwdaf\_roamingData to collect and exchange data between H-PLMN and V-PLMN. However, with consideration of data security and privacy, operators may only want to provide Nnwdaf\_RoamingAnalytics without exchanging data across different PLMNs. Therefore, operators need to configure that the RE-NWDAF supports Nnwdaf\_RoamingAnalytics exclusively. However, the NWDAFFunction IOC cannot reflect this feature in roaming case.

In TS 23.288 [59], four service operations are specified under "NWDAF Roaming Analytics" that enables the consumer to request or to subscribe or to unsubscribe for roaming analytics generated by the RE-NWDAF. These service operations include the following:

• *Nnwdaf\_RoamingAnalytics\_Subscribe* service operation

• *Nnwdaf\_RoamingAnalytics\_Unsubscribe* service operation

• *Nnwdaf\_RoamingAnalytics\_Notify* service operation

• *Nnwdaf\_RoamingAnalytics\_Request* service operation

The number of roaming analytics subscriptions, requests, notifications and responses are some of the basic statistic information to monitor the performance of RE-NWDAF. These basic measurements can be used to derive the other performance of RE-NWDAF such as roaming analytics service successful and/or failed rate, etc. With these measurements, operators can analyze and evaluate the performance of the RE-NWDAF. Operators can use these measurements to take management actions for configuration, resource allocation, load balance and placement purposes.

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| **End of change** |