**3GPP TSG- Meeting #110e**

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| *CR-Form-v12.0* |
| **DRAFT CHANGE REQUEST** |
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|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
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| *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 | **X** | Radio Access Network |  | Core Network |  |

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| ***Title:***  |  |
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| ***Source to WG:*** |  |
| ***Source to TSG:*** |  |
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| ***Work item code:*** |  |  | ***Date:*** |  |
|  |  |  |  |  |
| ***Category:*** |  |  | ***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 canbe 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-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
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| ***Reason for change:*** | The Metrics Collection and Reporting functionality is not fully aligned with the 5GMS architecture. |
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| ***Summary of change:*** | Corrections done to align with the 5GMS architecture. |
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| ***Consequences if not approved:*** | It will not be possible to activate metrics collection and reporting via 5GMS functions. |
|  |  |
| ***Clauses affected:*** | 5.5 |
|  |  |
|  | **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:*** |  |

=================================== First change ================================

## 5.5 Metrics collection and reporting

### 5.5.1 General

Metrics collection and reporting can be done in different ways, depending on the relationship between the Service Provider and the Network Operator. The following clauses show simplified signalling examples for two different use-cases.

### 5.5.2 RAN-based reporting procedure

In the first use-case, shown in Figure 5.5.2-1 below, the MNO is controlling the metrics reporting using the RAN-based configuration and reporting option. In this case the metrics are configured via the RAN and the 5G control plane, not using any specific 5GMS functionality.



Figure 5.5.2-1: Metrics collection using the RAN-based option

The different steps are explained below:

1: Overall metrics configuration is done on the network level, for instance defining which geographical areas that shall have metrics collection active, and how often metrics shall be reported.

2: The metrics configuration(s) is/are sent from the OAM to the RAN, which does not forward that information to the UE at this stage.

3: Time passes, and it is assumed that the UE moves around during that period.

4: The UE enters an area (cell, location area, etc.,) which is inside the geographical constraint. This is discovered by the RAN, and it now needs to activate metrics reporting for the UE.

5: The actual metrics configuration is sent from the RAN to the Media Session Handler, via the 5G control plane.

6: Additional time passes, and the UE has a metrics configuration, but no streaming session has started.

7: A streaming session is started.

8: The session setup is done in conjunction with signalling transactions (not shown here).

9: A new metrics collection job is created in the Media Player.

10: A reference to the new metrics collection job is returned.

11: The configuration for the metrics collection job is sent to the Media Player (i.e. which metrics should be measured).

12: Media is delivered and rendered, and...

13: ...more media is delivered...

14: The configured metrics reporting interval has passed, and the Media Session Handler now requests the collected metrics from the Media Player.

15: The Media Player returns the collected metrics.

16: The metrics are reported via the 5G control plane.

17: The session continues...

18: more media is delivered, and then the session is finished.

19: The Media Session Handler requests the final metrics collected.

20: The Media Player returns the final collected metrics.

21: The metrics are reported to the OAM via the 5G control plane.

22: The metrics collection job is deleted.

23: Time passes, the UE moves around.

24: The UE leaves the geographical area specified by the metrics configuration.

25: The RAN sends metrics (de)configuration to the UE, to stop future metrics collection.

### 5.5.3 5GMSd AF-based reporting procedure

The second use-case, shown in figure 5.5.3-1 below, illustrates a scenario where the metrics collection is configured via the 5GMSd AF. The 5GMSd AF and 5GMSd AS functions can both be either trusted or untrusted (but not mixed).



Figure 5.5.3-1: Metrics collection using the 5GMSd AF-based option

The different steps are explained below:

1: A streaming session starts.

2: The App initializes a new session.

3: The Media Session Handler requests the metrics configuration (in the Service Access Information) from the 5GMSd AF.

4: The metrics configuration is returned, and potentially also forwarded to the App.

5: A new metrics collection instance is created in the Media Player.

6: A reference to the new instance is returned.

7: The configuration for the metrics collection instance is sent to the Media Player (i.e. specifying which metrics should be measured).

8: The Media Session Handler requeste the Media Player to start playing the new session.

9: The streaming session is running.

10: The Media Player requests media content.

11: Media is delivered and rendered, and...

12: more media is delivered...

13: The configured metrics reporting interval has passed, and the Media Session Handler now requests the collected metrics from the Media Player.

14: The Media Player returns the collected metrics.

15: The metrics are reported to the specified 5GMSd AF server address using the specified DNN.

16: The Media Player continues to request media content.

17: The session continues...

18: more media is delivered, and then the session is finished.

19: The Media Session Handler requests the final metrics collected.

20: The Pedia Player returns the final collected metrics.

21: The metrics are reported.

22: The metrics collection instance is deleted.

### 5.5.4 Metrics collection configuration parameters

Table 4.2.3-4 in clause 4.2.3 describes the metrics collection configuration parameters used in step 5 of Figure 5.5.2-1 and step 7 of Figure 5.5.3-1. Note that some of the parameters are only relevant for a specific reporting option, as shown in Table 5.5.4-1 below.

Table 5.5.4-1: Metrics collection configuration parameters and options

|  |  |  |
| --- | --- | --- |
| **Parameters** | **RAN-based reporting** | **5GMSd AF-based reporting** |
| Server address |  | X |
| DNN |  | X |
| Reporting interval | X | X |
| Sample percentage | X | X |
| Streaming source filter | X |  |
| Metrics | X | X |