**3GPP TSG-SA WG4 Meeting #127S4-240023**

**Sophia-Antipolis, France, 29 January - 2 February 2024**

**Source: NTT**

**Title: [FS\_eiRTCW] Pseudo-CR on Conclusion of FS\_eiRTCW (excluding state-3 aspect)**

**Spec: 3GPP TR 26.930**

**Agenda item: 10.9**

**Document for: Agreement**

**1. Introduction**

The pCR proposes the updates on conclusion of the Study Item (FS\_eiRTCW).

**2. Reason for Change**

1. The clause of overall evaluation is not needed since the solution evaluations are described per solution in this TR.

2. The clause of "conclusions and recommendations" needs to be updated based on the solution evaluations in clause 6.

**3. Proposal**

It is proposed to agree on the following changes to 3GPP TR 26.930. The conclusion in stage-3 aspects will be provided in another pCR.

\* \* \* First Change \* \* \* \*

# 6 Solutions

## 6.1 General

This clause describes the solutions for key issues in clause 5. Each solution corresponds to a key issue with the same number (e.g., Solution #1 corresponds to Key Issue #1). In subsequent clauses for each solution, solution evaluations are described per solution.

\* \* \* Next Change \* \* \* \*

\* \* \* Next Change \* \* \* \*

# 7 Conclusions and Recommendations

## 7.1 General

In this clause, the expected normative works during release-19 timeframe are summarized as conclusions of this Study Item (FS\_eiRTCW). The expected normative works are summarized per stage-2 and stage-3 aspects, based upon the solution evaluations for enabling collaboration scenario 4 and collaboration scenario 3 in clause 6.

## 7.2 Expected normative works in stage-2 aspect

The architecture diagram that best represents the architectural solutions in this document is shown in Figure 7.2-1. While Network Support function (NS-AF) is snipped in the figure, this document expects RTC AF to be integrated with WebRTC Signalling Function (WSF) to interact with 5GC via N5 interface, as indicated in 3GPP TS 26.506 [10] clause 4.2.5.

Also, as an extension of collaboration scenario 4, this document addresses the interworking between RTC network and IMS network over NNI (RTC-Z reference point) which conforms to 3GPP TS 29.162 [??].



Figure 7.2-1: Derivative RTC architecture diagram

For the expected normative works in stage-2 aspect, the works of A) B) are recommended to proceed.

A) New reference points

- This document identifies that the following reference points are required to be newly introduced, in addition to the existing reference point defined in 3GPP TS 26.506 [10] clause 4.3. These reference points need to be assigned/defined considering the common architecture for 5GMS and RTC.

1) RTC-X

\* To enable the immersive RTC service in collaboration with content providers, the interface between a ASWF and a content provider network for service control is needed. Over this reference point, ASWF is expected to provide the service control APIs.

2) RTC-Y

\* To enable the collaboration scenario 4 supporting interoperability between multiple MNOs, the interface between two different operator's RTC networks or between an operator's RTC network and service provider's network is needed.

\* RTC-Y is divided into two sub-interfaces, RTC-Ys (for C-Plane signalling) and RTC-Ym (U-Plane media/data transport).

3) RTC-Z

\* To enable the interworking with IMS network as an extension of collaboration scenario 4, the interface between RTC network and IMS network is needed.

\* RTC-Z is also divided into two sub-interfaces, RTC-Zs (for C-Plane signalling) and RTC-Zm (U-Plane media/data transport).

B) Functional enhancements on the existing entities

- This document identifies that the functional enhancements on the existing entities shown in Table 7.2-2 are required against the functional definitions in 3GPP TS 26.506 [10] clause 4.2. This table does not show all the enhancements, but major enhancements identified in this document.

- This document does not identify the new functional entity needed.

Table 7.2-2: Major expected functional enhancements

|  |  |  |  |
| --- | --- | --- | --- |
| Entity | Expected functional enhancement | Interface | Solution |
| UE | Support of WSF discovery mechanism at UE. | RTC4m | Sol#6 |
| WSF | Interaction with MF for media session control. | - | - |
| Interaction with ASWF for collaboration with web applications/services. | - | - |
| Interaction with 5GC, using network Support function (NS-AF). | N5 | Sol#1 |
| Authentication/authorization of the UE. | RTC-4s | Sol#2 |
| Support of functionalities needed for service control.* Connection control enforcer
* RTC ID resource handling enforcer
 | RTC-X | Sol#5 |
| Signing and verification of network-asserted UE's ID. | RTC-Ys | Sol#10 |
| MF | Support of functionalities needed for service control.* Media data forwarding control enforcer
* RTC exchange resource handling enforcer
 | RTC-X | Sol#5 |
| ASWF | Exposing the service control APIs. | RTC-X | Sol#5 |
| Storage of user subscription data specific to MNO's WebRTC services. | - | - |
| Providing supplementary files via best-effort transport different from the channels for real-time media. | RTC-4m | Sol#1 |
| Providing WSF discovery functionality. | RTC-4m | Sol#6 |
| IWF | C-plane signalling protocol interworking between RTC network and IMS network. | RTC-Zs | Sol#7 |
| Signing and verification of network-asserted UE's ID. | RTC-Ys | Sol#10 |
| TGF | U-Plane protocol interworking between RTC network and IMS network. | RTC-Zm | Sol#7 |

Regarding RTC-Z reference point and related functional enhancements, the impact on the existing IMS specification needs be discussed further with relevant groups before normative work.

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