**3GPP TSG-RAN3 Meeting #109-e R3-205646**

**E-meeting, 17 - 28 August 2020**

**Title:** Potential solutions to network slice service continuity

**Source:** Huawei

**Agenda item:** 17.2

**Document Type:** Discussion and Decision

# Annex 1– TP for TR 38.832

# 6 Study necessity and mechanisms to support service continuity

## 6.1 Scenario and issue description

*Editor Note: capture the description of scenario and issue.*

## 6.2 Solutions

*Editor Note: Capture the solutions for the scenario and issue.*

### 6.2.x Handover procedures for use case: Slice resource shortage in case of Intra-RA mobility and Inter-RA mobility

#### 6.2.x.1 Xn based handover



**Fig. 1: Slice re-mapping/fallback determined by T-gNB**

1. The S-gNB sends the *HANDOVER REQUEST* message to the T-gNB, which may include the slice re-mapping/fallback list.
2. If UE’s ongoing slice(s) is rejected due to, e.g., high overload conditions, based on the slice re-mapping/fallback list provided by the S-gNB or the AMF in advance, the T-gNB makes the slice re-mapping/fallback decision. And it may send the decision in the HANDOVER REQUEST ACKNOWLEDGE message sent to the S-gNB.
3. The T-gNB may send the slice re-mapping/fallback decision to the AMF through the *PATH SWITCH REQUEST* message.
4. The AMF responds the *PATH SWITCH REQUEST ACKNOWLEDGE* message.

#### 6.2.x.2 NG based handover



**Fig. 2: Slice re-mapping/fallback determined by the T-gNB**

1. The S-gNB sends the *HANDOVER REQUIRED* message to the AMF.

Editor’s note: it is FFS whether the Slice re-mapping/fallback list is included in the *HANDOVER REQUIRED* message.

1. The AMF sends the *HANDOVER REQUEST* message to the T-gNB, which may include the slice re-mapping/fallback list.
2. If UE’s ongoing slice(s) is rejected due to, e.g., high overload conditions, based on the slice re-mapping/fallback list, the T-gNB may include the re-mapped/fallback decision in the *HANDOVER REQUEST ACKNOWLEDGE* message sent to AMF.
3. The AMF may send the slice re-mapping/fallback decision to the S-gNB through the *HANDOVER COMMAND* message.

### 6.2.y Handover procedures for use case: Non-supported slice in case of Inter-RA mobility

#### 6.2.y.1 Xn based handover



**Fig. 3: Slice re-mapping/fallback determined by the T-gNB**

1. The S-gNB sends the *HANDOVER REQUEST* message to the T-gNB, which may include the slice re-mapping/fallback list.
2. If UE’s ongoing slice(s) is not supported, based on the slice re-mapping/fallback list provided by the S-gNB or the AMF in advance, the T-gNB makes the slice re-mapping/fallback decision. And it may include the decision in the *HANDOVER REQUEST ACKNOWLEDGE* message sent to the S-gNB.
3. The T-gNB may send the slice re-mapping/fallback decision to the AMF through the *PATH SWITCH REQUEST* message.
4. The AMF responds the *PATH SWITCH REQUEST ACKNOWLEDGE* message.

#### 6.2.y.2 NG based handover



**Fig. 4: Slice re-mapping/fallback determined by the AMF**

1. The S-gNB sends the *HANDOVER REQUIRED* message to the AMF.

Editor’s note: it is FFS whether the Slice re-mapping/fallback list is included in the HANDOVER REQUIRED message.

1. If UE’s ongoing slice(s) is not supported by T-gNB, the AMF may make the slice re-mapping/fallback decision and include the decision in the *HANDOVER REQUEST* message sent to the T-gNB.

Editor’s note: the Slice re-mapping/fallback determined by the T-gNB remains further study.

1. The T-gNB responds to the AMF through the *HANDOVER REQUEST ACKNOWLEDGE* message.
2. The AMF may send the slice re-mapping/fallback decision to the S-gNB through the *HANDOVER COMMAND* message.