**3GPP TSG-SA5 Meeting #135e *S5-211479***

**e-meeting, 25January – 3 February 2021 Revision of S5-211106**

**Source: Telefónica S.A.**

**Title: pCR 28.557 Add CAG management**

**Document for: Approval**

**Agenda Item: 6.4.1**

# 1 Decision/action requested

***Discuss and approve on the proposal***

# 2 References

[1] TS 28.557 Management of non-public networks; Stage 1 and stage 2 v0.2.0

[2] TS 23.501 System architecture for the 5G System (5GS); Stage 2 v16.7.0

# 3 Rationale

CAG is defined in [2] and its management in PNI-NPN scenarios should be considered in [1]. In this contribution, it is proposed to add concept of CAG management in public integrated network non-public networks in draft TS 28.557 [1].

# 4 Detailed proposal

This document proposes the following changes in TS 28.557 [1].

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| --- |
| **1st Change** |

## 4.5 Management of PNI-NPNs

A PNI-NPN is a NPN made available via a PLMN, by means of dedicated DNNs, or by one (or more) network slice instances allocated for the NPN [2]. In order to access PNI-NPN, the UE shall have a subscription for the PLMN.

PNI-NPN operation may optionally make use of the concept of Closed Access Group (CAG) [2], which enables the control of UE’s access to PNI-NPN on a per cell basis (CAG cells). The CAG concept is used to prevent UEs which are not allowed to access the PNI-NPN from automatatically selecting and accessing the associated cell(s). The CAG cell broadcasts information such that only UEs supporting CAG are accessing the cell. This is not possible with the sole use of network slicing unless an operator specific barring is used. That is why CAG concept is needed for access control.

The PLMN ID identifies the network and the CAG ID identifies the CAG cells. Network selection and reselection is performed based on PLMN ID. Cell selection and reselection, and access control are done based on the CAG ID.

In a PNI-NPN scenario, the CAG management aspects include:

* Assignment and maintenance of CAG IDs.
* Managing the actual list of UEs that are allowed on the CAG. The information contained on this list must be shared between the NPN-SP and the NPN-SC.
* Access rights of individual CAG cells. The NPN-SC shall have the capability to configure access rights to CAG cells (e.g., allowed days / time slots for UEs provided to contractors of a company).