



# New SID proposal for Roaming Value Added Services

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# Problem description



- Roaming signaling links between 2G-4G networks are typically not integrity and confidentiality protected.
- Roaming Value Added Services (RVAS) can therefore be realized accessing the signaling messages between 2G-4G networks.
- Service based signaling between 5GS networks is on the other hand integrity and/or confidentiality protected, and user related identifiers may be concealed.
- 5G applicable RVAS will therefore need to be provided to the PLMNs.
- We are therefore suggesting a new study item proposal related to RVAS in order to study the services on the following slides.

# Potential RVAS to study (1/2)



- Welcome SMS
  - Roamers receive info-SM about pricing, support contact etc., when attaching to a new VPLMN
    - Registrations are monitored on interconnect; SMS is triggered when a UE is detected to change the VPLMN
- Steering of Roaming during registration procedure
  - In addition to the 3GPP defined SoR operators use another mechanism to shift UEs to other VPLMNs during the registration procedure
    - Intercepting the location update / registration and sending an appropriate reject results in the UE trying to select a different VPLMN
  - This is used as a more dynamic way of steering and also works with misbehaving UEs (mainly M2M UEs that e.g., ignore the USIM lists)

# Potential RVAS to study (2/2)



- IMSI based routing
  - Some operators use more than one PLMN ID, e.g. multi-national operators.
  - Due to certain business demands it might be necessary to route a certain IMSI range of USIMs of one PLMN to another PLMN and to handle them there.

