Discussion on CT1 LS in C1-195159

Applicability of the notification procedure in SNPNs

3GPP TSG SA2#135
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CT1 Scenario
Discussion

- UE registered in SNPN#1; and
- UE also registered in PLMN#1 and accessing the services of SNPN#1 via PLMN#1
- **Question 1:** Is the scenario described above supported in Rel-16?

- It is not clear what interpretation CT1 is having wrt access to SNPN#1 services:
  - Interpretation *a*: SNPN#1 access only indirectly via PLMN#1
  - Interpretation *b*: SNPN#1 access directly via SNPN#1 and indirectly via PLMN#1

- *NOTE: SNPN access is only supported over 3GPP access i.e. via an NG-RAN (regardless whether or not an N3IWF is in the data path*

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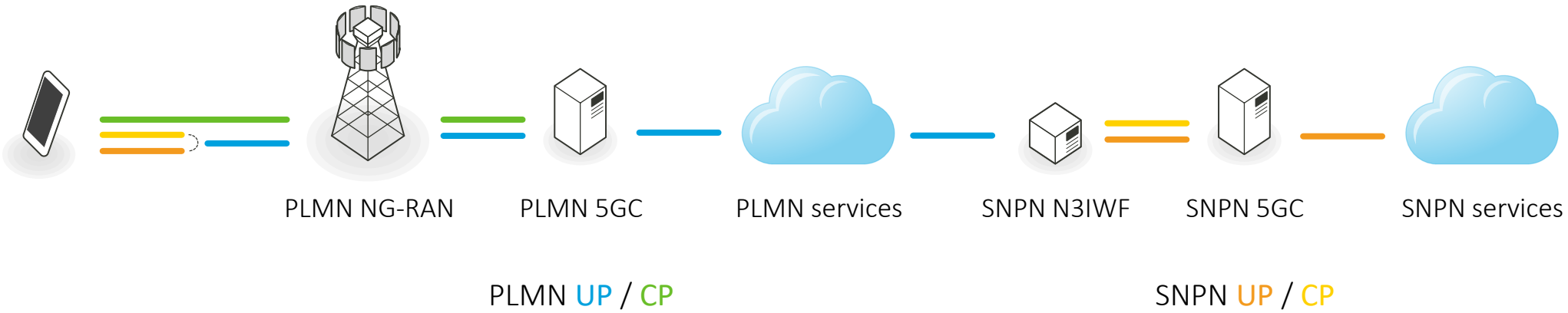
CT1 Scenario

Interpretation *a* – indirect access only to SNPN



- Single NG-RAN, two distinct CNs
- UE registered to PLMN and SNPN (via PLMN)
- Secure access to the SNPN is ensured through the SNPN N3IWF

✓ This interpretation is supported in TS23.501 (see Annex D.3)

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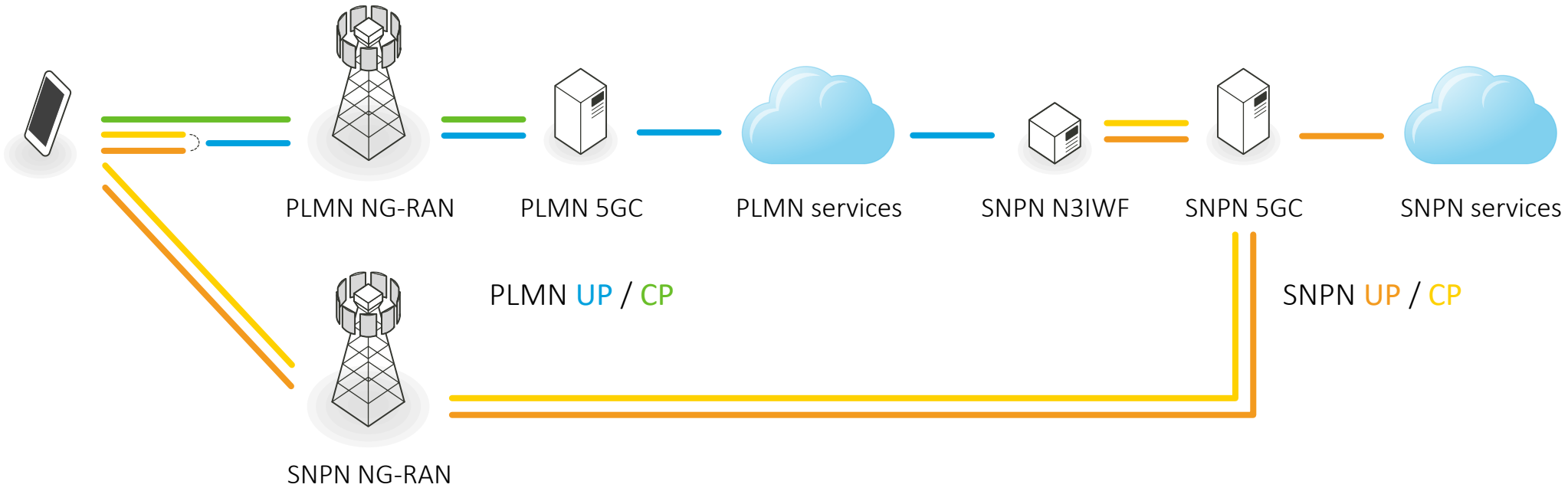
CT1 Scenario

Interpretation *b* – direct and indirect access to SNPN



- Two NG-RANs, two distinct CNs
- Interpretation *a*) + *concurrent* direct SNPN connection

✗ This interpretation is NOT supported in TS23.501

- Questionable use case: with SNPN NG-RAN being available, no reason to access SNPN via PLMN

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Question 1
Proposed answer

- **Question 1:** Is the scenario described above supported in Rel-16?

Proposal

- Answer 1: The scenario described above is only supported as described in 3GPP TS 23.501 Annex D.3 whereby the UE securely accesses the SNPN using a PLMN's 3GPP access connectivity and the SNPN N3IWF. Direct access to an SNPN is otherwise possible via an SNPN NG-RAN.

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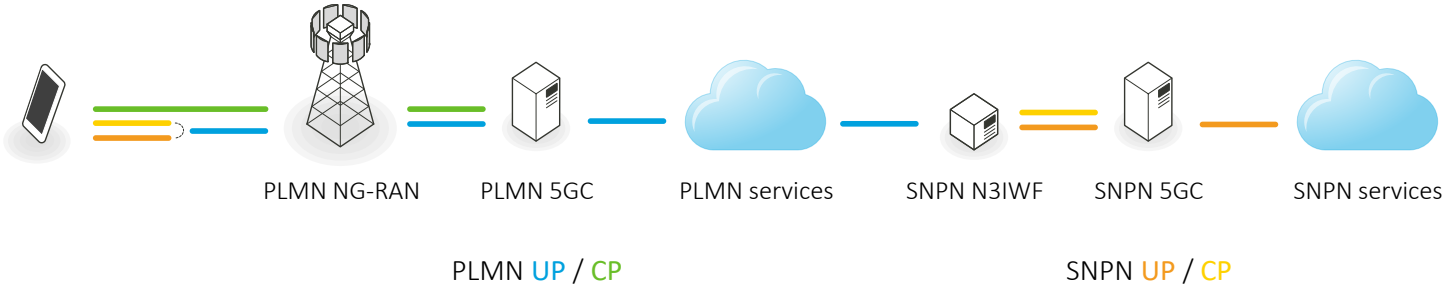
Question 2
Proposed answer

- **Question 2:** If the answer to Question 1 is Yes, when would the notification procedure be used in the scenario described above?

- With the scenario on Slide 3, the notification procedure is NOT used with the UE



Proposal

- Answer 2: see Answer 1, the notification procedure is NOT used with the UE given a single radio access is used.

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Question 3
Proposed answer

- **Question 3:** Is non-3GPP access to an SNPN supported in Rel-16?

Proposal

- Answer 3: SNPN access is only supported over 3GPP access in Rel-16 i.e. via an NG-RAN, regardless whether or not an N3IWF is in the data path. Access over non-3GPP access is not supported.

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Conclusions

- **Answer 1:** The scenario described above is only supported as described in 3GPP TS 23.501 Annex D.3 whereby the UE securely accesses the SNPN using a PLMN's 3GPP access connectivity (hence NG-RAN) and the SNPN N3IWF. Direct access to an SNPN is otherwise possible via an SNPN NG-RAN.
- **Answer 2:** see Answer 1, the notification procedure is NOT used with the UE given a single radio access is used.
- **Answer 3:** TSG SA2 would like to clarify that SNPN access is only supported over 3GPP access in Rel-16 i.e. via an NG-RAN, regardless whether or not an N3IWF is in the data path. Access over non-3GPP access is not supported.

- Draft LS: S2-1909707

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Thanks!

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