

Work plan for Vertical_LAN

3GPP TSG CT WG1 Meeting #125-e
Electronic meeting, 20-28 August 2020

C1-204548

Source: Nokia, Nokia Shanghai Bell
Agenda item: 16.2.7
Document for: Information

Contents

1. Review of exception request
2. Progress in CT#88e
3. TASK #1
4. TASK #2
5. TASK #3
6. Other topics

1. Review of exception request

Approved exception request available CP-201172

- Task(s) within work which are not complete
 - **TASK #1:** To specify how the UE obtains a human-readable network name
 - **TASK #2:** To assign an OUI for 3GPP
 - **TASK #3:** To determine whether a separate set of counters for each of the list of SNPNs for which the N1 mode capability was disabled, the "permanently forbidden SNPNs" list, and "temporarily forbidden SNPNs" list is needed or not
- Consequences if not included in Release 16
 - TS 23.122 does not clearly reflect a requirement to obtain a human-readable network name via system information broadcast. It remains open whether there is a requirement for a UE to obtain a human-readable network name via other means than the system information broadcast and if so by what other way(s) the UE can obtain a human-readable network name.
 - A mandatory field in a gPTP message within 5GS cannot be set.
 - UE behaviour upon receipt of 5GMM cause value #27, #72, #74, or #75 via a non-integrity protected NAS reject message is based on a single set of counters but the following aspects will remain unclear:
 - Re-enabling the N1 mode capability and removing the respective SNPN from the list of SNPNs for which N1 mode capability was disabled at expiry of T3247; and
 - DoS attack protection behaviour for 5GMM cause value #72.

2. Progress in CT#88e

Handling of HRNN information in a CAG cell

- CP-201360
 - CR0518r5 to TS 23.122
 - Presentation of Human readable name for CAG cell
 - Includes the following EN
 - It is FFS whether human-readable network name can be configured for a CAG-ID in a PLMN's entry in the CAG Information list, to be provided to the upper layer during manual CAG selection.
- CP-201361
 - LS to SA1/SA2 (Cc: CT1/CT4)
 - LS on HRNN
 - Two questions to SA1
 - Question-1) Are there stage-1 requirements for a UE to obtain a human-readable network name for the manual **NPN** selection using means other than the system information broadcast?
 - Question-2) If the answer to Question-1 is yes, what is the precedence between the human-readable network name obtained via other means and the human-readable network name obtained from the system information broadcast?

3. TASK #1

To specify how the UE obtains a human-readable network name

- PNI-NPN
 - Volunteer
 - HW: To remove the EN
 - E///: A requirement for HRNN other than SIB
- SNPN
 - Volunteer
 - Nokia/HW: CR in https://www.3gpp.org/ftp/tsg_ct/WG1_mm-cc-sm_ex-CN1/TSGC1_125e/Inbox/drafts/C1-20vpaa_was_4049_3598_2855_2407_HRNN.docx
 - System information broadcast/unicast?
 - E///
- If SA1 response is delivered after CT ~~891#125~~-e, any necessary changes will be applied in Rel-17.

4. TASK #2

To assign an OUI for 3GPP

- Still working on it...

5. TASK #3

To determine whether a separate set of counters for each of the list of SNPNs for which the N1 mode capability was disabled, the "permanently forbidden SNPNs" list, and "temporarily forbidden SNPNs" list is needed or not

- E-show of hands could be requested.
- DP available in https://www.3gpp.org/ftp/tsg_ct/WG1_mm-cc-sm_ex-CN1/TSGC1_125e/Inbox/drafts/C1-204517_SNPN-specific_N1_mode_attempt_counters.doc
- Another DP to be prepared by HW
- Or counter per list (Alternative 1; also for PLMN)?

Topic	Alternative 1	Alternative 2
Introduction of a separate set of counters for each of the SNPN lists	C1-204518 (TS 24.501)	Not needed
Re-enabling the N1 mode capability and removing the respective SNPN from the list of SNPNs for which N1 mode capability was disabled at expiry of T3247	C1-204521 (TS 24.501) Rev of C1-203366 (TS 23.122)	C1-204522 (TS 24.501) Rev of C1-203367 (TS 23.122)
DoS attack protection behaviour for 5GMM cause value #72	C1-204523 (TS 24.501)	C1-204524 (TS 24.501)

6. Other topics

Counters for non-3GPP access in DoS protection mechanism

- Validity of the attack in NWu
 - QC, E///, Nokia see possible attacks in NWu (due to security hole in DN and potential non-security-protected PDU session) – not convinced by proposal in aaaa/bbbb
 - HW shares observation related to access to SNPN/PLMN services via a PLMN/SNPN
 - Vivo co-sourced the paper

6. Other topics

AT CMD +CNASMSG

- Clarification on the scenario needed
- QoS comes in only in case of interaction b/w MT-SNPN and TE (in case of access to PLMN via an SNPN)
- There is a SA exclusively for NAS signaling.

6. Other topics

CRs related to CT plenary LS CP-201361

- https://www.3gpp.org/ftp/tsg_ct/TSG_CT/TSGC_88e/Inbox/CP-201361.zip

6. Other topics

Specifying SUPI types of SUPI in the "list of subscriber data", to align with SA3 LS S3-201432

- https://www.3gpp.org/ftp/tsg_ct/WG1_mm-cc-sm_ex-CN1/TSGC1_124e/docs/C1-203751.zip
- Update to 23.122

6. Other topics

Providing the CAG information list in case of MITM attack, as indicated in SA2 LS S2-2004455

- https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_139e_Electronic/Docs/S2-2004455.zip
- What we have done in the previous meeting might not be complete
- Vishnu has a CR on this

6. Other topics

Automatic selection by a UE supporting CAG configured with a non-empty “CAG information list”

- In automatic selection in subclause 4.4.3.1.1, the UE behaviour is specified solely for situation when the UE supporting CAG is configured with a non-empty "CAG information list".
- Thus, when the UE supporting CAG is configured with an empty "CAG information list", the UE can select a PLMN which is only available on a CAG cell, despite not having any CAG information (including not having the Allowed CAG list) for the PLMN.
- This would be incorrect - such UE should stick to non-CAG cells

6. Other topics

CAG information list in Registration reject message

- https://www.3gpp.org/ftp/tsg_ct/WG1_mm-cc-sm_ex-CN1/TSGC1_125e/inbox/drafts/S2-2004454-4313r02-4258-Sol.1_v1.3-r0.docx
- In the SA2 CR, sending of the reject cause is removed. But in CT1 CR, I have still kept it as it simplifies the handling in the UE. #76 is CAG related cause and there is no problem in the NW using this cause for the rejection.
- If there are benefits of using a 'shall' instead of 'should' under the circumstances.

NOIKKIA

A night landscape of a mountain valley. In the foreground, a yellow tent is illuminated from within, casting a warm glow. The middle ground shows a valley floor with a town or village whose lights are visible through the letters of the word 'NOIKKIA'. The background features rugged, dark mountains under a deep blue twilight sky.

Annex

- Participants
 - Ban, Chen, Peter D, Ivo, Lena, LF. Han, Thomas, Mohamed, Vishnu, Yanchao, Carlson, Cristina, Joy, Lin, Mariusz, Mike D., Ly-Thanh, Robert E., SangMin, Xu, Yi, Yildirim
 - CP-201314 is not implemented correctly – Ivo will fix it.