

Source: Ericsson, Nokia
Title: Proposed resolution of the different interpretations of the NITZ specifications
Document for: Approval
Agenda Item: 9

In the early implementations of the NITZ (Network Identity and Time Zone) feature, it has become evident that some manufacturers have made different interpretations and arrived at different implementations of NITZ.

Depending on the implementation, either the Universal Time or the Local Time is expected from the network.

There is a need for a clarification of the NITZ feature to avoid ambiguity and incompatible implementations in the future and thereby avoid establishing a permanent fragmentation that would severely damage the usage and reputation of the NITZ feature.

In the best interest of all parties, the authors of this contribution propose the following to resolve the situation:

- 1) Modifications shall be made to applicable specifications, in particular TS 04.08/24.008, to clearly point out that the time received by the MS shall be interpreted as the Universal Time plus the Local Time Zone offset in such a way that the Universal Time and the Local Time Zone are in separate fields. The Local Time can be obtained by combining these two pieces of information.
- 2) A remark shall be included in the applicable specifications, in particular TS 09.94, to clearly indicate that, there exist early NITZ MS implementations that are not consistent with the clarifying modifications proposed above.
- 3) A recommendation shall be issued to Core Network vendors and operators that there is a need for an adjustment in the MSC/VLR to handle Mobile Stations with early NITZ implementations that are inconsistent with the clarifying modifications above.
The foreseen adjustment could be based on identifying affected Mobile Stations through blocks of IMEI numbers and for these affected Mobile Stations the solution shall encode the time as Local Time plus Local Time Zone information.
The advice as above shall be included in the TSG-SA#6 official minutes.
- 4) The affected 3GPP groups are tasked to revise applicable specifications to reflect what is stated under 1) and 2) above, for all GSM and 3GPP Releases that include NITZ. The revision shall not impact other features in those Releases.
Identified groups and specifications include TSG-CN1 for TS 04.08/24.008 and TSG-SA1 for TS

02.42/22.042.

Additionally, a consistency check of any other relevant deliverables shall be carried out, e.g., TS 03.40/23.040 by TSG-T2.

- 5) ETSI SMG shall be informed about this matter and invited to endorse the proposed solution.

TSG-SA is asked to endorse and approve the proposed solution above and to send the approved document to ETSI SMG for their consideration.