



BUILDING GLOBAL COMMUNICATIONS

COMMITTEE CORRESPONDENCE

Please reply to:
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July 31, 2007

via electronic mail

Mr. Perry LaForge
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RE: Critical Need at CDG CTO Level for 56-bit Mobile Equipment Identifier (MEID) and Expanded UIM_ID (“E-UIM_ID”) Implementation from Present 32-bit ESN (and related UIM_ID dependency)

Dear Perry,

As discussed at the recent TR-45 meeting (June 6-7), we are raising the urgency for awareness at senior (CTO and related) levels that ESN is reaching exhaust and projected for early 2008 (see attached; as noted in ESN Administrator reports, and in particular the information in section IV). **As of June 30, 2007 there are only enough unassigned ESNs for just over 94 million subscribers.**

CDMA2000® carriers add approximately 6 to 7 million new subscribers every month. Over 200 million CDMA2000® handsets were sold last year. This highlights the urgency for carriers to migrate to MEID as well as E-UIM_ID derived from MEID resource rather quickly to avoid any negative business impact.

When ESNs are exhausted, there will be no virgin ESN resources to assign. The migration to the new MEID 56-bit terminal identifier has been taking place, but apparently very slowly by the service providers, with no known deployments yet at the network (infrastructure) level.

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www.tiaonline.org

The issue is also related to the UIM_ID numbering resource (i.e., a 32-bit identifier associated with the R-UIM, a smart card used in CDMA2000® mobile equipment) because UIM_ID is derived from the ESN pool of Manufacturer Serial numbers. Hence ESN as a terminal identifier and ESN used for UIM_ID derivative are both critical issues for the industry. A factor adding to this resource demand are markets such as India ramping up and the tremendous demand for millions of deployments of handsets/smart cards on a monthly basis.

John Derr, as ESN administrator, with TR-45 EUMAG guidance carefully manages and assigns ESNs while additionally allocating this resource, under careful risk analysis, for use for UIM_IDs. One of the ranges of ESN numbers for derivation for UIM_IDs comes from a group of ranges of previously assigned codes to AMPS and/or TDMA-only based ESNs. This requires proper documenting and the careful management of using the oldest ESNs, meeting with handset providers and operators to ensure and minimize any conflicts that may occur from usage of these ESNs, etc. This is not a job of just assigning numbers but a job requiring careful risk analysis, discussion and raising awareness with handset manufacturers and operators, reuse of ESNs with highest confidence level of no conflicts with ESNs for handset assignments, conservation of unused ESNs for handset manufacturers, etc.

We believe industry-wide back office processes have been ready for MEIDs. Though pseudo-ESN (Hex "80", Decimal MFR ID Code 128) has been in use (since the introduction of the LG chocolate phones circa second half 2006) in systems without MEID readiness, it isn't intended for a long term delay of MEID system implementations. This may increase probability of collisions associated with the increasing frequency of pseudo-ESN deployments, particularly in more densely populated metropolitan areas. Collisions can result in unhappy customers for service providers and set manufacturers possibly having to replace affected handsets, so understandably, this is a major concern. As you know, we have also been working with the CDG, CTIA and RCA to get a status view of carriers' deployments to support MEIDs. The migration to MEIDs is happening, but apparently not as expeditiously as it should, given the expected exhaust of ESNs in about 6 months.

Also, as we are assigning TDMA ESN blocks for UIM_ID derivation in large volumes, please let us know if there is any insight regarding TDMA networks being disbanded with complete shut down next year and the ability to reuse any additional TDMA/AMPS ESNs for UIM_IDs. **In addition, CTO's also need to be aware of the migration, for those using UIM_IDs, from 32-bit UIM_IDs to E-UIM_IDs.** The E-UIM_ID may either be derived from the MEID or utilize the ICC ID; both approaches have been specified as options within 3GPP2. Although UIM_IDs are expected to exhaust shortly after ESNs, planning for E-UIM_ID implementation also needs to be done in earnest now.

We are requesting you to give these ESN and UIM_ID related issues your highest priority and immediately reach out and inform the CTO-level constituents in your organization of the critical importance to elevate the urgency for full MEID implementation as soon as possible.

Particular documents of interest to issues noted above include, www.tiaonline.org/standards/resources/esn/documents/FAQ_ESN_UIMID_EUIMID_MEID.pdf and www.tiaonline.org/standards/resources/esn/documents/Collisions_pESN_wp.pdf, with all MEID-related documents and references posted to the TIA web site at www.tiaonline.org/standards/resources/esn and www.tiaonline.org/standards/resources/meid.

Replies may be directed to Gary Pellegrino, Chair-TR-45 EUMAG or myself. Your continued participation and support are appreciated.

Attached: TIA TR-45 ESN Administrator's Report (July 2007)

Sincerely,

Cheryl Blum
TIA TR-45 Chair

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