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Title: Reply to "Reply to ITU-T on "Sharing draft Recommendations ITU-T Y.2233Rev.1 and Y.2111Rev.1Amd"".

LIAISON STATEMENT

For comment to: **3GPP SA5**

For information to: **3GPP SA2, JCA-Mgt, SG3, ETSI TISPAN, ATIS TMOC**

Approval: **ITU-T SG 13 meeting**

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ITU-T Question 3/13 and 4/13 thank 3GPP TSG SA5 for their comments on the provided Draft ITU-T Y.2233 Rev.1 together with Draft ITU-T Y.2111 Rev.1Amd, and appreciate your effort for providing feedback on our current work related to policy-based NGN charging.

During the NGN-GSI/SG13 September 2010 meeting, we discussed the different architectural and functional differences observed between the 3GPP SA5 Charging architecture and the CAF (Charging and Accounting Function), and concluded that further discussions are still needed in order to provide a full response. Nevertheless, we wish to share our view on some of your comments that we are ready to address at this stage.

Extracted from 3GPP SA5 reply LS, with embedded answers:

- Architecture related:
    - Ce Reference Point residing in the "Transport functions" is not applicable in 3GPP Charging architecture. The 3GPP Policy and Charging Enforcement Function (PCEF) encompasses both roles of the PE-FE and CTF, as a single functional entity that governs both "Charging Policies and Rules enforcement" and "Online and Offline Charging interactions".

      Answer: SG 13 Q3/Q4 believes the functional separation of policy enforcement and the charging trigger function is important to the integrity of the Policy and Charging & Accounting framework architecture. The policy enforcement

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activities performed for charging (including the conveyance of policy information and controls to terminate use of network resources) are also performed for other telecom management functions such as network management/congestion controls. However, while the PE-FE and CTF are functionally separate entities, they are expected to co-exist within a network element, so the Ce Reference Point would not normally be implemented as a physical interface between systems.

- The Inter-provider charging gateway function (IPCGF) is not explicitly defined in 3GPP, as inter-provider information exchanges are expected to be settled using mechanisms outside the scope of 3GPP.

  Answer: We accept this comment as it relates to existing NGN deployments. It is ultimately desired that NGNs communicate directly with one another for exchange of charging information.

- In reference to the CAF represented in Figure-1 there is no demarcation of the Online Charging System (OCS) despite OCS being refered to in other areas throughout the ITU-T document. In the 3GPP's Online Charging architecture the following functions: CGF (in the online charging context), OCF, ABMF, and RF are internal functions of the OCS.

  Answer: The OCS is no longer referenced as a separate entity within the Y.2233 specification.

- <u>Functional description related:</u>
  - CCF (Charging Collection Function): this functional entity between the CTF and the CGF is named as Charging Data Function (CDF) in 3GPP Charging architecture.

    CCF and 3GPP-CDF have similar functionalities, except CCF charging schemes analysis function (e.g. for data volume per bearer or per-service flow) which is addressed in 3GPP by appropriate Charging Rules enforced by CTF (i.e. not the scope of 3GPP-CDF).

    Answer: The CCF charging schemes analysis function relates to the CCF capability to create offline charging CIRs (aka "CDRs"), based on information provided by CTF such as data volumes and service flow. The CTF determines, based on charging rules, what information will be provided to the CCF and is responsible for delivering the data volume and service flow information that is input for the CIRs. The creation of a CIR by the CCF may be prompted by a single chargeable event (e.g., the CTF informs the CCF that a data volume threshold has been reached) or other CIR generation rules (e.g., the aggregation of information provided in chargeable events received over a 24-hour period).

    As noted in TS 32.240 and re-iterated in Y.2233: "There is no requirement or assumption of any synchronisation between the reception of the charging event(s) and the creation of the resulting CDR. However, the CDF shall be capable of receiving and processing charging events and generating the resulting CDR in near real-time."

We hope these preliminary answers help clarify the comparison between 3GPP SA5 description and the ITU-T SG13 recommendations, and lead to further discussions on the policy-based NGN charging topic.

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