

3GPP
Technical Specification Group Core Networks
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Source: **TSG_CN WG2**
Harald Dettner

Title: **Proposed Liaison on Proposed Work Item on :
QoS Control for Asymmetric bearer for packet
services**

Document for: **Information**

Attention: **Agenda item 8**

3GPP TSG CN WG2
Sophia Antipolis, FR
16th-18th February 1999

Source: Harald Dettner
Title: **Proposed Liaison on**
Proposed Work Item on : QoS Control for Asymmetric bearer for packet services
From: **TSG_CN WG2**
To: **TSG_SA WG2**
cc: **TSG_CN, /CN WG1**

TSG_CN WG2 discussed on their recent meeting a proposed workitem on QoS Control for asymmetric bearer for packet services.

WG2 intends to produce Change requests to the MAP Specification for this topic. Nevertheless to prevent redundant/uncoordinated work WG2 requests in general more information from TSG_SA WG2 on the QoS discussion (work item) and its consequences for the protocols to be specified by TSG_CN.

TSG_SA2 is invited to provide TSG_CN / -WG2 with all relevant information which enables WG2 to elaborate respective changes to the specifications in their domain, respectively SA2 is invited to inform TSG_CN (WG2) of when the core network working groups can expect approved output on the QoS topic.

As background information the available working document N2-99037 is attached.

Working Document on Maximum Call Number of Multiple Call

Work Document

1. Summary

In the Circuit Switched Service, the MSC counts the simultaneous active calls. When the user update the location, the HLR informs the limit of the simultaneous active call number of the user to the VLR. And the VLR informs the number to the MSC. The MSC check the number and simultaneous active call number, when the user add the outgoing call or incoming call.

2. Addition parameters

Following parameters are added to Insert Subscriber Data.

- Maximum Call Number size:1octet 1-255 Option
- Maximum Session Number size:1octet 1-255 Option

Maximum Call Number is for Circuit Switched Service. Maximum Session Number is for Packet Service.

1. Check the number of simultaneous active calls

3.1. Circuit Switched Service

3.1.1.Deliver the Maximum Call Number from HLR to VLR/MSC

When the MSC receives the Update Location, the MSC sends the Update Location to the HLR. The HLR sends the Insert Subscriber Data including Maximum Call Number to the VLR/MSC. The VLR/MSC stores the Maximum Call Number with the Subscriber Data.

3.1.2.Incomming Call

When the MSC receives the IAM, The MSC sends the Subscriber Information For Incoming Call to the VLR. The VLR sends the Page MS to the MSC. The MSC shall check the number of simultaneous active calls. If the number don't reached to Maximum Call Number, then the MSC sends the Page to the BS. After that, The MSC recieves the Complete Call from the VLR. The MSC shall check the number of simultaneous active calls. If the number doesn't reach to Maximum Call Number, then the MSC sends the Setup to the BS.

3.1.3.Outgoing Call

When the MS sends the CM Service Request to the MSC, the MSC sends the Process Access Request to the VLR. After Authentication and Ciphering is done, the MS sends the Setup to the MSC. The MSC shall check the number of simultaneous active calls. If the number doesn't reach to Maximum Call Number, then the MSC sends the Subscriber Information For Outgoing Call to the VLR.

3.1. Packet Service

3.2.1. Deliver the Maximum Call Number from HLR to SGSN

When the SGSN receives the Attach Request from the MS, Identification and authentication is done. After that, The SGSN sends the Update Location to the HLR. The HLR sends the Insert Subscriber Data including Maximum Session Number to the SGSN. The SGSN stores the Maximum Session Number with the Subscriber Data.

3.2.2. Activate PDP Context

When the SGSN receives the Activate PDP Context Request from the MS, the MSC shall check the number of simultaneous active sessions. If the number doesn't reach to Maximum Session Number, then the SGSN sends the Create PDP Context request to the GGSN.

3.2.3. Network-Requested PDP activation

When the GGSN receives the PDP PDU, the GGSN gets the send routing information from the HLR. The GGSN sends the PDU Notification Request to the SGSN. The SGSN shall check the number of

simultaneous active sessions. If the number doesn't reach to Maximum Session Number, then the SGSN sends the Request PDP Context Activation to the MS.