

**3GPP TSG-CN Plenary#10**  
**Bangkok, Thailand**  
**6<sup>th</sup> – 8<sup>th</sup> December 2000**

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**Title:**            **Work Item Description for Release 4: ODB (Operator Determined Barring) for PS domain**

**Source:**         **NEC**

**Purpose:**         **For Approval**

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This contribution proposes the Work Item Description on ODB for PS domain.

Originally, the ODB for PS domain started to be standardised as the release 99 feature and the stage 1 description for ODB (TS 22.041) had been finalised as the release 99 in SA1. However, unfortunately the corresponding stage 2 and stage 3 works for ODB (PS domain) have NOT been standardised in CN4.

The misalignment between stage 1 and stage 2 & 3 description for ODB (PS domain) has just recognised in the last CN4 meeting. This misalignment in the ODB specification was informed from CN4 to SA1 to ask for their guidance how to handle this issue. The following is a summary that has been decided in the last SA1 meeting.

- Remove requirements for ODB of packet based services from release 99 stage 1 specification.
- Add requirements for ODB of packet based services to release 4 stage 1 specification.

NEC respects SA1's appropriate decisions and would like to proceed necessary stage 2 and stage 3 works for ODB (PS domain) as the release 4 feature.

Because of the reason described above, This WI is urgently created by NEC and directory submitted to CN Plenary #10 seeking for approval.

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## Work Item Description

### **ODB (Operator Determined Barring) for PS domain**

**1**

#### **3GPP Work Area**

|   |              |
|---|--------------|
|   | Radio Access |
| X | Core Network |
| X | Services     |

**2**

#### **Linked work items**

None

**3**

#### **Justification**

As stated in the current ODB stage1 specification, the purpose of ODB feature is to be able to limit the service provider's financial exposure to new subscribers, or to those who have not promptly paid their bills.

In order to fulfil this purpose, this network feature has to be effective for both CS domain and PS domain. Currently in release 99, the ODB feature works only for CS domain.

Initially, this ODB enhancement was started for release 99. However, due to lack of correspondence between SA1 and CN4, the stage2 and stage3 works for this feature could not be finalised in time for release 99. Therefore this WI is newly created as the release 4 WI.

**4**

#### **Objective**

Packet Oriented Services, particularly data services, are different in nature to Circuit Oriented Services, and therefore have different requirements for Operator Determined Barring. Currently there is no requirements described in the ODB stage 1 specification for Packet Oriented Services.

**5**

#### **Service Aspects**

As described in the following categories, the Service Provider may at any time activate this feature and this shall terminate any relevant services in progress, and bar future requests for service covered by the barring category:

- It shall be possible to bar subscribers completely from the Packet Oriented Services.
- It shall be possible to bar a subscriber from requesting Packet Oriented Services from access points that are outside the HPLMN whilst the subscriber is in the HPLMN.
- It shall be possible to bar a subscriber from requesting Packet Oriented Services from access points that are within the HPLMN whilst the subscriber is roaming in a VPLMN.
- It shall be possible to bar a subscriber from requesting Packet Oriented Services from access points that are within the roamed to VPLMN.
- Whilst roaming in a VPLMN, it shall be possible to bar a subscriber from requesting Packet Oriented Services from access points that are neither in the HPLMN nor the roamed to VPLMN.

The term 'access point' is used to indicate the GGSN or part of the GGSN that is specified by a particular APN.

**6**

#### **MMI-Aspects**

None

**7 Charging Aspects**

None

**8 Security Aspects**

None

**9 Impacts**

| <b>Affects:</b>   | <b>USIM</b> | <b>ME</b> | <b>AN</b> | <b>CN</b> | <b>Others</b> |
|-------------------|-------------|-----------|-----------|-----------|---------------|
| <b>Yes</b>        |             |           |           | X         |               |
| <b>No</b>         | X           | X         | X         |           | X             |
| <b>Don't know</b> |             |           |           |           |               |

**10 Expected Output and Time scale (to be updated at each plenary)**

| <b>New specifications</b>               |                      |  |                      |   |                             |  |
|---|----------------------|--|----------------------|---|-----------------------------|--|
| Spec No.                                | Title                | Prime<br>rsp. WG   | 2ndary<br>rsp. WG(s) | Presented for<br>information at<br>plenary# | Approved at<br>plenary#     | Comments   |
| None                                    |                      |  |                      |   |                             |  |
| <b>Affected existing specifications</b> |                      |  |                      |   |                             |  |
| Spec No.                                | CR                   | Subject  |                      |   | Approve<br>d at<br>plenary# | Comments   |
| 22.041<br>(ODB stage1)                  | S1-00852<br>S1-00853 | <ul style="list-style-type: none"> <li>Inclusion of section 5.2 to add requirement for ODB of packet services and to add the definition of the term 'Service Access Point'</li> </ul>  |                      |   | TSG<br>SA#10                | TSG-SA1 has approved this CR in their #10 meeting (13-17 Nov. 2000). |
| 23.015<br>(ODB stage 2)                 |                      | <ul style="list-style-type: none"> <li>ODB function needs to be applied for the Packet oriented services as well as CS domain services.</li> <li>Barring categories for Packet oriented services needs to be introduced.</li> </ul>  |                      |   | TSG<br>CN#11                |  |
| 23.008 (org.<br>of sub. Data)           |                      | <ul style="list-style-type: none"> <li>The ODB-induced barring data for the packet-oriented services needs to be introduced.</li> </ul>  |                      |   | TSG<br>CN#11                |  |
| 23.016 (sub.<br>data stage 2)           |                      | <ul style="list-style-type: none"> <li>Barring category for GPRS services needs to be introduced.</li> </ul>   |                      |   | TSG<br>CN#11                |  |
| 23.060<br>(GPRS<br>stage2)              |                      | <ul style="list-style-type: none"> <li>Annex A (APN and GGSN selection) in 23.060 needs to be enhanced to describe the barring mechanism.</li> <li>ODB related data needs to be added to Information storage in SGSN.</li> </ul>   |                      |   | TSG<br>SA#11                |  |
| 29.002 (MAP)                            |                      | <ul style="list-style-type: none"> <li>New IE, "Operator Determined Barring General Data For GPRS" is introduced.</li> <li>New IE, "Operator Determined Barring General Data For GPRS" can be carried by the MAP-INSERT-SUBSCRIBER-DATA service as the optional IE.</li> <li>Update relevant descriptions in 29.002. (Ex. ASN.1, SDLs if needed.)</li> </ul> |                      |   | TSG<br>CN#11                |  |

**11 Work item raporteurs**

NEC, Toshiyuki Tamura ([tamurato@nsf.ncos.nec.co.jp](mailto:tamura@nsf.ncos.nec.co.jp))

**12 Work item leadership**

TSG-CN4

**13 Supporting Companies**

NTT DoCoMo, NTT Comware, NEC, Fujitsu, NTC and Vodafone

**14 Classification of the WI (if known)**

|   |                            |
|---|----------------------------|
| X | Feature (go to 14a)        |
|   | Building Block (go to 14b) |
|   | Work Task (go to 14c)      |

**14a** The WI is a Feature: List of building blocks under this feature

**ODB (Operator Determined Barring) enhancements**

**14b** The WI is a Building Block: parent Feature

**14c** The WI is a Work Task: parent Building Block