Oracle® Communications
Network Charging and Control
Mobile Application Part (MAP) Protocol
Implementation Conformance Statement
Release 5.0.1

June 2013
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About This Document

Scope

This document defines the extent to which Messaging Manager complies with the Mobile Application Part of ETSI's GSM specification.

Audience

This document is intended to be read by Oracle staff. It has been prepared on the assumption that the reader is familiar with Messaging Manager as well as the short message capabilities of the GSM specification.
**Document Conventions**

**Typographical Conventions**

The following terms and typographical conventions are used in the Oracle Communications Network Charging and Control (NCC) documentation.

<table>
<thead>
<tr>
<th>Formatting convention</th>
<th>Type of information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Special Bold</strong></td>
<td>Items you must select, such as names of tabs. Names of database tables and fields.</td>
</tr>
<tr>
<td><strong>Italics</strong></td>
<td>Name of a document, chapter, topic or other publication. Emphasis within text.</td>
</tr>
<tr>
<td><strong>Button</strong></td>
<td>The name of a button to click or a key to press. <strong>Example:</strong> To close the window, either click <strong>Close</strong>, or press <strong>Esc</strong>.</td>
</tr>
<tr>
<td><strong>Key+Key</strong></td>
<td>Key combinations for which the user must press and hold down one key and then press another. <strong>Example:</strong> <strong>Ctrl+P</strong>, or <strong>Alt+F4</strong>.</td>
</tr>
<tr>
<td><strong>Monospace</strong></td>
<td>Examples of code or standard output.</td>
</tr>
<tr>
<td><strong>Monospace Bold</strong></td>
<td>Text that you must enter.</td>
</tr>
<tr>
<td><strong>variable</strong></td>
<td>Used to indicate variables or text that should be replaced.</td>
</tr>
<tr>
<td><strong>menu option &gt; menu option &gt;</strong></td>
<td>Used to indicate the cascading menu option to be selected, or the location path of a file. <strong>Example:</strong> <strong>Operator Functions &gt; Report Functions</strong> <strong>Example:</strong> <strong>/IN/html/SMS/Helptext/</strong></td>
</tr>
<tr>
<td><strong>hypertext link</strong></td>
<td>Used to indicate a hypertext link on an HTML page.</td>
</tr>
</tbody>
</table>

Specialized terms and acronyms are defined in the **Glossary** at the end of this guide.
Overview

Introduction

This chapter defines the version of Messaging Manager and the ETSI document against which it is compared.

In this chapter

This chapter contains the following topics.

Messaging Manager

MMX implementation

This document states compliance for Messaging Manager version 3.1.1. The environment for this version of Messaging Manager is defined below:

- Target platform
  - Platform - SPARC Solaris
  - Operating system - SunOS 5.9
  - Database - Oracle 9.2.05
- Build environment
  - Compiler - GNU GCC 3.2.3
  - Binutils - GNU binutils 2.14
- Oracle packages
  - SMS 3.0
  - ACS 2.4
  - SLEE 3.2
  - Hughes IF 3.4.26

ETSI

ETSI documents

This statement of compliance refers to the two European Telecommunications Standards Institute (ETSI) documents listed below.

- Digital cellular telecommunications system (Phase 2+); Mobile Application part (MAP) specification (GSM 09.02 version 7.5.0 Release 1998).
Note: For the purpose of this document, Digital cellular telecommunications system (Phase 2+); Mobile Application part (MAP) specification (GSM 09.02 version 7.5.0 Release 1998) will be referred to as GSM 09.02.

- Digital cellular telecommunications system (Phase 2+); Technical realization of the Short Message Service (SMS) Point-to-Point (PP), (3GPP TS 03.40 version 7.5.0 Release 1998).
  Note: For the purpose of this document, Digital cellular telecommunications system (Phase 2+); Technical realization of the Short Message Service (SMS) Point-to-Point (PP), (3GPP TS 03.40 version 7.5.0 Release 1998) will be referred to as TS 03.40.
Overview

Introduction

This chapter identifies which MAP services are supported by Messaging Manager.

Given the specialised nature of Messaging Manager, and for the sake of brevity, only compliance with the Short Messaging Services is described in detail.

In this chapter

This chapter contains the following topics.

<table>
<thead>
<tr>
<th>ETSI References</th>
<th>9</th>
</tr>
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<tbody>
<tr>
<td>Specification Sections 7 through 11</td>
<td>9</td>
</tr>
<tr>
<td>Short Message Service Management Services (12)</td>
<td>10</td>
</tr>
<tr>
<td>Specification sections 13 and 13A</td>
<td>21</td>
</tr>
</tbody>
</table>

ETSI References

Convention

- Where possible the relevant clause number of GSM 09.02 is included in brackets at the end of each topic title.
- In some cases GSM 09.02 refers to clauses of TS 04.03. Where this happens, reference is made to TS 04.03 in the compliance statement.

Specification Sections 7 through 11

Introduction

Statements of compliance with sections 7 through 11 of GSM 09.02 follow.

Common MAP services

Messing Manager complies.

Where used by Messaging Manager, map services are correctly mapped onto TCAP primitives.

Mobility services (8)

Messing Manager does not comply.

Operation and maintenance services (9)

Messing Manager does not comply.
Chapter 2

Call handling services (10)
Messaging Manager does not comply.

Supplementary services related services (11)
Messaging Manager does not comply.

Short Message Service Management Services (12)

Introduction
Statements of compliance for clauses of section 12 of *GSM 09.02* follow.

**MAP-SEND-ROUTING-INFO-FOR-SM service (12.1)**

Messaging Manager complies.
Messaging Manager supports the receipt of these messages and Messaging Manager Navigator supports the construction of them.

The MAP-SEND-ROUTING-INFO-FOR-SM service takes 14 parameters. These are covered under the following headings.

- Invoke Id
- MSISDN
- SM-RP-PRI
- Service Centre Address
- SM-RP-MTI
- SM-RP-SMEA
- GPRS Support Indicator
- IMSI
- Network Node Number
- LMSI
- GPRS Node Indicator
- Additional Number
- User error
- Provider error

**Invoke Id (7.6.1.1)**

Messaging Manager complies.

Invoke Id is always zero for messages sent from Messaging Manager Navigator. Messaging Manager Navigator never sends two messages in the same dialogue.

**MS ISDN (7.6.2.17)**

Messaging Manager complies.

MS ISDN is mapped to the generic message's destination address.

**SM-RP-PRI (7.6.8.5)**

Messaging Manager complies.
SM-RP-PRI maps to the generic message's priority indicator with all but Normal mapping set to \textit{true}.

\textbf{Note:} Messaging Manager Navigator caches HLR responses independently of this variable. If the cell phone's switched-off status is ignored, a high priority request may receive the same response as a previous low priority request.

**Service centre address (7.6.2.27)**

Messaging Manager complies.
- For inbound SRISMs, the service centre address is correctly proxied.
- For messages generated by Messaging Manager, the service centre address identifies the message centre associated with the inbound path.
- For messages constructed by ACS (Messaging Manager Navigator query nodes), this field is blank.

**SM-RP-MTI (7.6.8.16)**

Messaging Manager does not comply.
SM-RP-MTI is ignored by MTX and is not proxied to the HLR.

**SM-RP-SMEA (7.6.8.17)**

Messaging Manager does not comply.
SM-RP-SMEA is ignored by Messaging Manager and is not proxied to the HLR.

**GPRS Support Indicator (7.6.8.15)**

Messaging Manager complies.
- Received values are stored internally as the GprsSupported flag and correctly proxied to the HLR.
- For Messaging Manager generated messages, the configuration value from XMS.MAP.gprsSupport is used. All values are mapped to \textit{true} except 'unsupported'.
- For ACS generated messages, the configuration value from RIMS.ChassisActions.RimsChassisAction.allowGPRS is used.

**IMSI (7.6.2.1)**

Messaging Manager complies.
IMSI is stored in MapTransaction's imsi variable. It is not stored in GenericMessage.

**Network Node number (7.6.2.43)**

Messaging Manager complies.
It is possible for the Network Node number to be the SGSN number in an HLR response.

**LMSI (7.6.2.16)**

Messaging Manager does not comply.
LMSI is the value returned by RIMS and stored in MapTransaction's lmsi variable. However Messaging Manager allows this lmsi to be sent to the SGSN and thus violates clause 7.6.2.16 of \textit{TS 03.40}. 
GPRS Node Indicator (7.6.8.14)
Messaging Manager complies.
Messaging Manager Navigator examines this field to determine the SGSN and Network Node numbers. The GPRS Node Indicator is not returned by Messaging Manager Navigator to Messaging Manager but Messaging Manager correctly constructs it for SRSIM responses.

Additional number (7.6.2.46)
Messaging Manager complies.

User error (7.6.1.4)
Messaging Manager does not comply.
On error, this field is not examined or acted upon.

Provider error (7.6.1.3)
Messaging Manager does not comply.

MAP-MO-FORWARD-SHORT-MESSAGE service (12.2)
Messaging Manager complies.
Messaging Manager supports receipt and construction of these messages.
The MAP-MO-FORWARD-SHORT-MESSAGE service takes seven parameters. These are covered under the following headings.

- Invoke Id
- SM RP DA
- SM RP OA
- SM RP UI
- IMSI
- User error
- Provider error

Invoke Id (7.6.1.1)
Messaging Manager complies.

SM-RP-DA (7.6.8.1)
Messaging Manager complies.
SM-RP-DA is stored in GenericSM's sMSCAddress field. For outgoing messages this field is populated from a lookup of the originating and destination addresses hashed together into a map of all known MSCs.

SM-RP-OA (7.6.8.2)
Messaging Manager complies.
SM-RP-OA is stored in GenericSM's originatingAddress field.
SM-RP-UI (7.6.8.4)

Messaging Manager complies.
The following three PDU-specific fields affect SM-RP-UI.

- SMS-DELIVER-REPORT
- SMS-SUBMIT
- SMS-COMMAND

SMS-DELIVER-REPORT (9.2.2.1a)

Messaging Manager does not comply.
SMS-DELIVER-REPORT is defined in TS 03.40.
Messaging Manager assumes that all received MO-Forward-SMs contain an SMS-Submit as the RP UI. SMS-Deliver-Report PDUs are never constructed by Messaging Manager.

SMS-SUBMIT (9.2.2.2)

SMS-SUBMIT is defined in TS 03.40.
A compliance statement for each element of SMS-SUBMIT is listed below.

<table>
<thead>
<tr>
<th>Map field</th>
<th>GenericSM location</th>
<th>Compliance statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP-Message-Type-Indicator</td>
<td></td>
<td>Messaging Manager complies. TP-Message-Type-Indicator is not stored in Messaging Manager. All MO-Forward-SMs are assumed to be SMS-Submits.</td>
</tr>
<tr>
<td>TP-Reject-Duplicates</td>
<td>RejectDuplicates</td>
<td>Messaging Manager complies.</td>
</tr>
<tr>
<td>TP-Validity-Period-Format</td>
<td>ValidityPeriod</td>
<td>Messaging Manager complies.</td>
</tr>
<tr>
<td>TP-Reply-Path</td>
<td>ProvideReplyPath</td>
<td>Messaging Manager complies.</td>
</tr>
<tr>
<td>TP-User-Data-Header-Indicator</td>
<td>UserDataHeaderPresent</td>
<td>Messaging Manager complies.</td>
</tr>
<tr>
<td>TP-Destination-Address</td>
<td>destinationAddress</td>
<td>Messaging Manager complies.</td>
</tr>
<tr>
<td>TP-Protocol-Identifier</td>
<td>ProtocolIdentifier</td>
<td>Messaging Manager complies. Translated to Messaging Manager encoding via the protocolIdMap configuration option.</td>
</tr>
<tr>
<td>TP-Data-Coding-Scheme</td>
<td>MessageWaitingGroup, MessageWaitingType, MessageWaitingIndicator, currentAlphabet, MessageClass</td>
<td>Messaging Manager complies. The DCS itself is not stored internally. Its components are stored as separate variables.</td>
</tr>
<tr>
<td>TP-Validity-Period</td>
<td>ValidityPeriod</td>
<td>Messaging Manager complies.</td>
</tr>
</tbody>
</table>
### SMS-COMMAND (9.2.2.4)

Messaging Manager does not comply.

SMS-COMMAND is defined in *TS 03.40*.

Messaging Manager assumes that all received MO-Forward-SMs contain an SMS-Submit as the RP UI. SMS-Command PDUs are never constructed by Messaging Manager.

### IMSI (7.6.2.1)

Messaging Manager complies.

For MAP version 3, the incoming IMSI is stored in OriginatingImsi and sent to Messaging Manager Navigator where it updates the cache. If the originating imsi is present, outgoing messages have the originating imsi set.

### User error (7.6.1.4)

Messaging Manager does not comply.

On receipt of a user error, Messaging Manager translates the error using the forwardSmErrorMap configuration option. The result is then stored in GenericSMResult's resultCode variable.

### Provider error (7.6.1.3)

Messaging Manager does not comply.

Messaging Manager treats receipt of a provider error as a transientFailure.

### MAP-REPORT-SM-DELIVERY-STATUS service (12.3)

Messaging Manager does not comply.

Messaging Manager cannot handle the receipt or construction of a MAP-REPORT-SM-DELIVERY-STATUS message.

### MAP-READY-FOR-SM service (12.4)

Messaging Manager does not comply.

Messaging Manager cannot handle the receipt or construction of a MAP-READY-FOR-SM message.

### MAP-ALERT-SERVICE-CENTRE service (12.5)

Messaging Manager does not comply.

Messaging Manager can handle receipt of MAP-ALERT-SERVICE-CENTRE messages and uses such messages to update the Messaging Manager Navigator cache. However Messaging Manager does not pass the message on to the originating SMSC or attempt to redeliver the message.
In the context of the service provided by MAP-ALERT-SERVICE-CENTRE, Messaging Manager's failure to comply does not matter. A failed FDA should be followed by an attempted MO delivery. The message is therefore stored at an SMSC and the SMSC receives an alert-service-centre message. It is also possible to configure Messaging Manager such that alert-service-centre messages are sent directly from the HLR to the originating SMSC.

MAP-ALERT-SERVICE-CENTRE takes five parameters. These are covered under the following headings.

- **Invoke Id**
- **MSIsdn-Alert**
- **Service Centre Address**
- **User error**
- **Provider error**

**Invoke Id (7.6.1.1)**

Messaging Manager complies.

**MSIsdn-Alert (7.6.2.29)**

Messaging Manager complies.
The value of MSIsdn-Alert is invalidated in the Messaging Manager Navigator cache.

**Service centre address (7.6.2.27)**

Messaging Manager does not comply.
The service centre address is ignored by Messaging Manager Navigator.

**User error (7.6.1.4)**

Messaging Manager does not comply.
Messaging Manager never replies with an error — only with an empty TCAP_END.

**Provider error (7.6.1.3)**

Messaging Manager does not comply.

**MAP-INFORM-SERVICE-CENTRE service (12.6)**

Messaging Manager does not comply.
Messaging Manager cannot handle receipt of the MAP-INFORM-SERVICE-CENTRE message.
Messaging Manager Navigator can use this message to update its cache. However Messaging Manager Navigator does not pass the message on to the originating SMSC nor does it attempt to deliver the message. Messaging Manager Navigator only examines the mw-Status flag, with a transientFailure being "mnrf or mcfl or (mnrg & GPRS supported)".
All other values set the cache element status to *successful*.

**MAP-SEND-INFO-FOR-MT-SMS service (12.7)**

Messaging Manager does not comply.
Messaging Manager cannot handle the receipt or construction of the MAP-SEND-INFO-FOR-MT-SMS message.

MAP-SEND-INFO-FOR-MO-SMS service (12.8)

Messaging Manager does not comply.
Messaging Manager cannot handle the receipt or construction of the MAP-SEND-INFO-FOR-MO-SMS message.

MAP-MT-FORWARD-SHORT-MESSAGE service (12.9)

Messaging Manager supports receipt and construction of these messages.
The MAP-MT-FORWARD-SHORT-MESSAGE service takes seven parameters. A compliance statement for each parameter is made under one of the following headings.

- Invoke Id
- SM RP DA
- SM RP OA
- SM RP UI
- More Messages To Send
- User error
- Provider error

Invoke Id (7.6.1.1)

Messaging Manager complies.

SM-RP-DA (7.6.8.1)

Messaging Manager does not comply.
SM-RP-DA is stored in either of the GenericSM's destinationImsi or destinationLmsi fields.
Messaging Manager allows an LMSI to be sent to the SGSN. This functionality violates clause 7.6.2.1.6 of GSM 09.02.

SM-RP-OA (7.6.8.2)

Messaging Manager complies.
SM-RP-OA is stored in GenericSM's serviceCentreAddress field. For FDA-constructed messages, this field is obtained from GenericSM's originatingAddress field.

SM-RP-UI (7.6.8.4)

Messaging Manager complies.
The compliance of individual PDU-specific fields is listed under the following three headings.

- SMS-DELIVER
- SMS-SUBMIT-REPORT
- SMS-STATUS-REPORT

SMS-DELIVER (9.2.2.1)

SMS-DELIVER is defined in TS 03.40.
Compliance for individual elements of SMS-DELIVER is listed below.

<table>
<thead>
<tr>
<th>Map field</th>
<th>GenericSM location</th>
<th>Compliance statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP-Message-Type-Indicator</td>
<td></td>
<td>Messaging Manager complies.</td>
</tr>
</tbody>
</table>
| TP-More-Messages-to-Send          |                               | Messaging Manager complies.  
  - Messaging Manager complies only if it is Messaging Manager that generates TP-More-Messages-to-Send.  
  - Always set to "no more messages to send".  
  - TP-More-Messages-to-Send is ignored in inbound messages. The non SM-RP-UI sendMoreMessages parameter is used instead. See More Messages To Send (on page 21). |
| TP-Reply-Path                     | ProvideReplyPath              | Messaging Manager complies.  
  - Messaging Manager complies only if it is Messaging Manager that generates TP-Reply-Path.  
  - Always set TP-Reply-Path to false.  
  - Saved in GenericSM from inbound message.  
  **Note:** TP-Reply-Path was not part of the MAP phase 1 specification. |
| TP-User-Data-Header-Indicator     | UserDataHeaderPresent         | Messaging Manager complies. From an inbound message, TP-User-Data-Header-Indicator is saved in GenericSM.  
  **Note:** TP-User-Data-Header-Indicator was not part of the MAP phase 1 specification. |
  - Messaging Manager uses only the smeRequested bit.  
  - From an inbound message, TP-Status-Report-Indication is saved in GenericSM.  
  **Note:** TP-Status-Report-Indication was not part of the MAP phase 1 specification. |
<p>| TP-Originating-Address            | OriginatingAddress            | Messaging Manager complies. From an inbound message, TP-Originating-Address is saved in GenericSM.                                                                                                                |</p>
<table>
<thead>
<tr>
<th>TP-Protocol-Identifier</th>
<th>ProtocolIdentifier</th>
<th>Messaging Manager complies.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>- A configurable mapping from the incoming TP-Protocol-Identifier may have occurred.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- From an inbound message, TP-Protocol-Identifier is saved in GenericSM.</td>
</tr>
<tr>
<td>TP-Data-Coding-Scheme</td>
<td>MessageWaitingGroup, MessageWaitingType, MessageWaitingIndicator, currentAlphabet, MessageClass</td>
<td>Messaging Manager complies. The DCS itself is not stored internally. Its components are stored as separate variables.</td>
</tr>
<tr>
<td>TP-Service-Centre-Time-Stamp</td>
<td></td>
<td>Messaging Manager complies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- userTimezone’s local time is used.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- TP-Service-Centre-Time-Stamp is ignored in inbound messages.</td>
</tr>
<tr>
<td>TP-User-Data-Length</td>
<td>UserDataLength, userDataHeaderlength</td>
<td>Messaging Manager complies. From an inbound message, TP-User-Data-Length is saved in GenericSM.</td>
</tr>
<tr>
<td>TP-User-Data</td>
<td>UserData, userDataHeader</td>
<td>Messaging Manager complies. From an inbound message, TP-User-Data is saved in GenericSM.</td>
</tr>
</tbody>
</table>

**SMS-SUBMIT-REPORT (9.2.2.2a)**

Messaging Manager does not comply.

SMS-SUBMIT-REPORT is defined in *TS 03.40*.

Messaging Manager cannot construct or receive these messages.

**SMS-STATUS-REPORT (9.2.2.3)**

SMS-STATUS-REPORT is defined in *TS 03.40*.

Compliance for individual elements of SMS-STATUS-REPORT is listed below.

<table>
<thead>
<tr>
<th>Map field</th>
<th>GenericSM location</th>
<th>Compliance statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP-Message-Type-Indicator</td>
<td></td>
<td>Messaging Manager complies.</td>
</tr>
<tr>
<td>TP-User-Data-Header-Indication</td>
<td></td>
<td>Messaging Manager complies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Messaging Manager complies only if it is Messaging Manager that generates TP-User-Data-Header-Indication.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- TP-User-Data-Header-Indication is hard-coded to <em>false</em>.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- TP-User-Data-Header-Indication is ignored in</td>
</tr>
<tr>
<td><strong>TP-More-Messages-to-Send</strong></td>
<td><strong>Messages Manager complies.</strong></td>
<td></td>
</tr>
<tr>
<td>----------------------------</td>
<td>-------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Messaging Manager complies only if it is Messaging Manager that generates TP-More-Messages-to-Send.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• TP-More-Messages-to-Send is always set to &quot;no more messages to send&quot;.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• TP-More-Messages-to-Send is ignored in inbound messages.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TP-Status-Report-Qualifier</strong></th>
<th><strong>Messages Manager complies.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Messaging Manager complies only if it is Messaging Manager that generates TP-Status-Report-Qualifier.</td>
</tr>
<tr>
<td></td>
<td>• TP-Status-Report-Qualifier is hard-coded to 0 — SmsCommands are not supported.</td>
</tr>
<tr>
<td></td>
<td>• TP-Status-Report-Qualifier is ignored in inbound messages.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> TP-Status-Report-Qualifier was not part of the MAP specification prior to phase 2+.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TP-Message-Reference</strong></th>
<th><strong>MessageReference</strong></th>
<th><strong>Messages Manager complies.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>From inbound messages, TP-Message-Reference is saved in GenericSM.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TP-Recipient-Address</strong></th>
<th><strong>OriginatingAddress</strong></th>
<th><strong>Messages Manager complies.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>From inbound messages, TP-Recipient-Address is saved in GenericSM.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TP-Service-Centre-Time-Stamp</strong></th>
<th><strong>ServiceCentre-TimeStamp</strong></th>
<th><strong>Messages Manager complies.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• If TP-Service-Centre-Time-Stamp is null, userTimezone’s local time is used.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• TP-Service-Centre-Time-Stamp is ignored in inbound messages.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TP-Discharge-Time</strong></th>
<th><strong>ServiceCentreTimestamp</strong></th>
<th><strong>Messages Manager does not comply.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Messaging Manager uses the SCTS time.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• TP-Discharge-Time is ignored in inbound messages.</td>
<td></td>
</tr>
</tbody>
</table>
| TP-Status                | DeliverySucceeded | Messaging Manager does not comply.  
|-------------------------|-------------------|--------------------------------------  
|                         |                   | • If deliverySucceeded is false, TP-Status is set to the configured delivery-FailureStatusCode.  
|                         |                   | • If deliverySucceeded is true, TP-Status is set to 0.  
|                         |                   | • In inbound messages, if TP-Status = 0, deliverySucceeded is set to true.  
|                         |                   | • In inbound messages, if TP-Status ≠ 0, deliverySucceeded is set to false.  
| TP-Parameter-Indicator  |                   | Messaging Manager complies.  
|                         |                   | • No optional parameters are ever included.  
|                         |                   | • Ignored in inbound messages.  
|                         |                   | Note: TP-Parameter-Indicator was not part of the MAP specification prior to phase 2+.  
| TP-Protocol-Identifier  |                   | Messaging Manager does not comply.  
|                         |                   | • TP-Protocol-Identifier is not set by Messaging Manager.  
|                         |                   | • TP-Protocol-Identifier is ignored in inbound messages.  
|                         |                   | Note: TP-Parameter-Indicator was not part of the MAP specification prior to phase 2+.  
| TP-Data-Coding-Scheme   |                   | Messaging Manager does not comply.  
|                         |                   | TP-Data-Coding-Scheme is not set by Messaging Manager.  
|                         |                   | TP-Data-Coding-Scheme is ignored in inbound messages.  
|                         |                   | Note: TP-Data-Coding-Scheme was not part of the MAP specification prior to phase 2+.  
| TP-User-Data-Length     |                   | Messaging Manager does not comply.  
|                         |                   | • TP-User-Data-Length is not set by Messaging Manager.  
|                         |                   | • TP-User-Data-Length is ignored in inbound messages.  

Chapter 2

20 NCC Mobile Application Part (MAP) Protocol Implementation Conformance Statement
<table>
<thead>
<tr>
<th>Note: TP-User-Data-Length was not part of the MAP specification prior to phase 2+.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP-User-Data</td>
</tr>
<tr>
<td>Messaging Manager does not comply.</td>
</tr>
<tr>
<td>• TP-User-Data is not set by Messaging Manager.</td>
</tr>
<tr>
<td>• TP-User-Data is ignored in inbound messages.</td>
</tr>
<tr>
<td>Note: TP-User-Data was not part of the MAP specification prior to phase 2+.</td>
</tr>
</tbody>
</table>

**More Messages To Send (7.6.8.7)**

Messaging Manager complies.

- For inbound messages, Messaging Manager examines More Messages To Send and enacts the correct response.
- On outbound messages the more message flag is never set. Messaging Manager separates messages into individual dialogues.

**User error (7.6.1.4)**

Messaging Manager does not comply.

On receipt, Messaging Manager translates user errors using the forwardSmErrorMap configuration. The result is stored in GenericSMResult's resultCode variable.

**Provider error (7.6.1.3)**

Messaging Manager does not comply.

**Specification sections 13 and 13A**

**Introduction**

Statements of compliance for clauses of Sections 13 and 13A of *GSM 09.02* follow.

**Network-Requested PDP Context Activation services (13)**

Messaging Manager does not comply.

Messaging Manager treats a Network-Requested PDP Context Activation message as a transientFailure.

**Location Service Management Services (13A)**

Messaging Manager does not comply.
NCC Glossary of Terms

ACS
Advanced Control Services configuration platform.

CC
Country Code. Prefix identifying the country for a numeric international address.

ETSI
European Telecommunications Standards Institute

FDA
First Delivery Attempt - the delivery of a short message directly to the SME rather than relaying it through the MC.

GPRS
General Packet Radio Service - employed to connect mobile cellular users to PDN (Public Data Network- for example the Internet).

GSM
Global System for Mobile communication.
It is a second generation cellular telecommunication system. Unlike first generation systems, GSM is digital and thus introduced greater enhancements such as security, capacity, quality and the ability to support integrated services.

HLR
The Home Location Register is a database within the HPLMN (Home Public Land Mobile Network). It provides routing information for MT calls and SMS. It is also responsible for the maintenance of user subscription information. This is distributed to the relevant VLR, or SGSN (Serving GPRS Support Node) through the attach process and mobility management procedures such as Location Area and Routing Area updates.

HPLMN
Home PLMN

HTML
HyperText Markup Language, a small application of SGML used on the World Wide Web.
It defines a very simple class of report-style documents, with section headings, paragraphs, lists, tables, and illustrations, with a few informational and presentational items, and some hypertext and multimedia.

IMSI
International Mobile Subscriber Identifier. A unique identifier allocated to each mobile subscriber in a GSM and UMTS network. It consists of a MCC (Mobile Country Code), a MNC (Mobile Network Code) and a MSIN (Mobile Station Identification Number).
The IMSI is returned by the HLR query (SRI-SM) when doing FDA. This tells the MSC exactly who the subscriber is that the message is to be sent to.

**ISDN**

Integrated Services Digital Network - set of protocols for connecting ISDN stations.

**ITU**

International Telecommunication Union

**LMSI**

The subscriber's Local Mobile Subscriber Identity. When the subscriber is roaming, FDA uses both an LMSI and an IMSI.

**MAP**

Mobile Application Part - a protocol which enables real time communication between nodes in a mobile cellular network. A typical usage of the protocol would be for the transfer of location information from the VLR to the HLR.

**MC**

Message Centre. Also known as SMSC.

**MCC**

Mobile Country Code. In the location information context, this is padded to three digits with leading zeros. Refer to ITU E.212 (“Land Mobile Numbering Plan”) documentation for a list of codes.

**Messaging Manager**

The Messaging Manager service and the Short Message Service components of Oracle Communications Network Charging and Control product. Component acronym is MM (formerly MMX).

**MM**

Messaging Manager. Formerly MMX, see also XMS (on page 26) and Messaging Manager (on page 24).

**MNC**

Mobile Network Code. The part of an international address following the mobile country code (MCC), or at the start of a national format address. This specifies the mobile network code, that is, the operator owning the address. In the location information context, this is padded to two digits with a leading zero. Refer to ITU E.212 (“Land Mobile Numbering Plan”) documentation for a list of codes.

**MO**

Mobile Originated

**MS**

Mobile Station
**MSC**
Mobile Switching Centre. Also known as a switch.

**MSIN**
Mobile Station Identification Number.

**MSISDN**
Mobile Station ISDN number. Uniquely defines the mobile station as an ISDN terminal. It consists of three parts; the country code (CC), the national destination code (NDC) and the subscriber number (SN).

**MT**
Mobile Terminated

**Oracle**
Oracle Corporation

**PLMN**
Public Land Mobile Network

**RIMS**
Routing Information for Mobile Services. Used to cache HLR lookup information.

*Note: Now known as "Messaging Manager Navigator".*

**SGML**

**SGSN**
Serving GPRS Support Node

**SLEE**
Service Logic Execution Environment

**SME**
Short Message Entity - an entity which may send or receive Short Messages. It may be located in a fixed network, a mobile, or an SMSC.

**SMS**
Depending on context, can be:
- Short Message Service
- Service Management System platform
- NCC Service Management System application
SMSC
Short Message Service Centre - stores and forwards a short message to the indicated destination subscriber number.

SN
Service Number

SRI
Send Routing Information - This process is used on a GSM network to interrogate the HLR for subscriber routing information.

TCAP
Transaction Capabilities Application Part – layer in protocol stack, message protocol.

VLR
Visitor Location Register - contains all subscriber data required for call handling and mobility management for mobile subscribers currently located in the area controlled by the VLR.

XMS
Three letter code used to designate some components and path locations used by the Oracle Communications Network Charging and Control Messaging Manager (on page 24) service and the Short Message Service. The published code is MM (on page 24) (formerly MMX).
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