ETSI/TC GSM
Released by : ETSI/PT 12 V
Release date: FEBRUARY 1992

RELEASE NOTE

Recommendation GSM 08.58-DCS

BASE STATION CONTROLLER (BSC) TO BASE TRANSCEIVER STATION (BTS) INTERFACE LAYER 3 SPECIFICATION

Previously distributed version : 3.0.0
New released version February 1992: 3.0.0 (Release 92, Phase 1)

1. Reason for changes

No changes since the previously distributed version

2. Details of changes

CR	Title	Sections modified	Ref GSM Doc

3.Further Study Items

ETSI-GSM
Technical
Specification

GSM 08.58-DCS

Version 3.0.0

UDC: 621.396.21

Key words: European Digital Cellular Telecommunications System, Global System for Mobile Communications (GSM)

European digital cellular telecommunication system (phase 1);

Base Station Controller (BSC) to Base Station Tranceiver (BTS) Interface Layer 3 Specification

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PREFATORY NOTE

ETSI has constituted stable and consistent documents which give specifications for the implementation of the European Cellular Telecommunications System. Historically, these documents have been identified as "GSM recommendations".

Some of these recommendations may subsequently become Interim European Telecommunications Standards (I-ETSs) or European Telecommunications Standards (ETSs), whilst some continue with the status of ETSI-GSM Technical Specifications. These ETSI-GSM Technical Specifications are for editorial reasons still referred to as GSM recommendations in some current GSM documents.

The numbering and version control system is the same for ETSI-GSM Technical Specifications as for "GSM recommendations".

ETSI/GSM

Recommendation GSM 08.58-DCS version 3.0.0

Title : Base Station Controller (BSC) to Base Transceiver Station (BTS) Interface Layer 3 Specification

Date : February, 1992

Version : 3.0.0 (based on GSM 08.58 v. 3.5.0)

List of Contents :

Original Language : English

Number of Pages : 3

1. SCOPE

The use and general aspects of the BSC to BTS interface (the A-bis interface) are given in Recommendation GSM 08.51.
This recommendation specifies the general structure of layer 3 and traffic management procedures and messages used on the A-bis interface to support signalling procedures as defined in Recommendation GSM 04.08.
Network management procedures and messages for the A-bis interface are defined in Recommendation GSM 08.59.
The functional split between BSC and BTS is defined in recommendation 08.52. The procedures and messages required to support this split are defined in detail in this recommendation.

This delta recommendation only includes modified part concerning specifically the DCS 1800 short term solution (phase 1).

2. PROTOCOL MODEL

A model for L3 can be found in figure 2.1.
L2 addressing is made to TRX (or BCF) using the TEI of LAPD. Different L2 links are used for traffic management messages (RSL, Radio Signalling Link), network management messages (OML, Operation & Maintenance Link) and L2 management messages (L2ML, Layer 2 Management Link).
For traffic management, two types of signalling messages have been defined:
Transparent Messages:Messages which are forwarded by BTS without interpretation or changes.
Non-Transparent Messages:Messages which are sent only between BSC and BTS and which BTS is acting upon or which are the results of BTS actions.
In addition, the messages have been grouped into four main groups: Radio Link Layer Management, Dedicated Channel Management, Common Channel Management and TRX Management messages.
Discrimination between these types and groups is based on the Message Discriminator which is sent as the first octet in all messages. Transparent and non-transparent messages are discriminated by a transparancy flag (T-bit) in the Message Discriminator. Transparent messages are merely forwarded to L2 on the radio interface.
In order to address the relevant radio channel, a Channel Number element is included to support the distribution of messages to relevant physical channels on the TRX. A Link Identifier element supports the distribution on logical links/channels on the radio interface (compare the DLCI element of the A interface, Rec 08.06).
All messages in this recommendation are to be transmitted on the A-bis interface using the I format of LAPD, except for "MEASUREMENT RESULT" which is sent in UI format.

9.3.28 Message Identifier

This element is used to indicate a message type within a message.

8	7	6	5	4	3	2	1	
Element identifier								1
Message Type								2

Octet 2 is coded as the Message Type information element, section 9.2.

9.3.29 Message Indicator

This element is used to indicate that a complete message as defined in section 8 follows, starting in the next octet. The element consists of only the information element identifier.

8	7	6	5	4	3	2	1	
Element identifier								1

9.3.30 System Info Type

This element is used to indicate the type of SYSTEM INFORMATION message as defined in Recommendation GSM 04.08 (SYSTEM INFORMATION 1 through 8).

8	7	6	5	4	3	2	1	
Element identifier								1
Reserved				Sys Info Type				2

The Sys Info Field (bits 1-4 of octet 2) indicates the SYSTEM INFORMATION message. It is coded as follows:

Value	System information message
0 0 0 1	SYSTEM INFORMATION 1
0 0 1 0	SYSTEM INFORMATION 2
0 0 1 1	SYSTEM INFORMATION 3
0 1 0 0	SYSTEM INFORMATION 4
0 1 0 1	SYSTEM INFORMATION 5
0 1 1 0	SYSTEM INFORMATION 6
1 0 1 0	SYSTEM INFORMATION 2bis
1 1 0 1	SYSTEM INFORMATION 5bis

All other values are reserved.