



Customer Interface Publication: KCOM (Hull) CIP022

Public Switched Telephone Network (PSTN) Technical Characteristics of the Fixed Line Short Message Service Interface

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The information in this document is provided in accordance with the requirements of the Radio Equipment and Telecommunications Terminal Equipment Regulations 2000 (Statutory Instrument 2000 No. 730) to publish (in accordance with the EC Radio and Telecommunications Terminal Equipment Directive 99/05/EC) technical characteristics of interfaces to the public fixed telephone network.

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1. Scope

This document specifies the technical characteristics of the interface of the Fixed Line Short Message

Service delivered to a customer at the Network Terminating Point (NTP) by KCOM Group PLC.

Changes to the network that affect the correct working of approved terminal equipment will be published by KCOM Group PLC in various documents made available from the address below. If the changes impact on this document then it will be updated.

Enquiries relating to the technical content of this document and the availability of other publications should be directed to:

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2. Introduction

This KCOM Group PLC Customer Interface Publication provides information for application developers and terminal equipment suppliers about the service and the technical interfaces. In the remainder of this document, the Customer Premise Equipment (CPE) will be referred to as Short Message Terminal Equipment (SM-TE).

3. General Service Description

3.1. Outline Service Description

The KCOM Fixed Line SMS service offers KCOM's fixed line customers the ability to send and receive SMS messages from suitable SM-TE. The service provided by KCOM is based on a BT service platform^[1]; this enables delivery and receipt of SMS messages between KCOM and the BT Fixed Line SMS service subscribers and also UK mobile operator subscribers.

The platform includes a text to speech feature where an SMS message for a UK fixed line not equipped with suitable SM-TE may be provided with an audio speech message or the message placed in the network Voice Mail of the subscriber, if active. Message retrieval will conform to the specific platform standard voice message procedures. When an attempt to deliver an SMS or audio speech message is met by busy condition, a re-try regime is invoked.

It is technically possible that UK mobile network users roaming abroad may be able to originate a message to a KCOM customer: this is where appropriate commercial interconnection agreements allow this. At service launch there is no ability of a KCOM Fixed Line SMS user to originate a message to a UK mobile subscriber where the subscriber is achieving mobile service as a result of roaming onto an international network.

3.2. SMS CPE Service

SM-TE requires access via either a Single Analogue Line interface^[2] including Centrex or an ISDN connection.^[3] When the SM-TE initiates a call, Calling Line Identifier (CLI) must be provided. For lines with a permanent CLI restriction, the call to the platform must be prefixed by 1470. For the avoidance of doubt, placing 1470 in front of the destination subscriber number does not meet the requirement. A receiving fixed line must be enabled with KCOM Caller Display service^[4].

The SMS delivery call will be treated as any other call on the fixed network and will be subject to any forwarding or diversion applied to the line.

3.3. SMS Text to Speech Service

KCOM customers without the appropriate SM-TE or Caller Display Service will be offered the opportunity to receive SMS as speech. This will be delivered as either an SM call delivery on the customer line or a message placed in the subscriber "in-box" of the KCOM Message Minder System where this service is taken.

Retrieval of the message from Message Minder is as per access for a standard voice message. Loop disconnect signalling is not supported. If the voice delivery call encounters a busy line or the call is unanswered there will be further attempts until either the call is answered or a timeout occurs.

Where a call from the SMS platform is answered, and no dialled digit response is received, then the text to speech service will wait for a platform determined period then automatically play the message.

The text to speech call will be treated as any other call on the fixed network and will be subject to any forwarding or diversion applied to the line.

4. SMS CPE Interface Description

Details of the KCOM Single Analogue Line Interface and ISDN2 Interface are provided at References 2,3 and 4. To send and receive Short Messages, a voice-band call will be established between the server and SM-TE using basic call control procedures according to the related access types.

The service platform supports ETSI "Protocol 1" but not "Protocol 2" as defined in ES 201 912^[5]. The service access code dialled by the SM-TE shall be:

1709400<SME Subaddress> or

1709400<SME Subaddress>0

The subaddress range is 1 to 8. Subaddress 9 is reserved for SM-TE without an assigned subaddress or subaddress capability.

The above digit strings should be prefixed by 1470 on lines with permanent CLI restriction.

Further description of the protocols as specifically used by the service is contained in BT SIN 413^[1].

5. Safety and EMC Information

5.1. Safety

The normal working voltages of the interface are defined in References 2 and 4.

5.2. EMC

The network equipment and network terminating equipment related to the provision of the interfaces comply with the current EMC regulations. Whilst predominantly installed in residential and commercial environments, this does not preclude the interface being installed in other environments e.g. light industrial and industrial. This should be taken into account by the terminal equipment manufacturer when determining the limits of compliance relevant to their equipment in relation to the protection requirements of the EMC directive.

6. Recommended Terminal Equipment Standards

The minimum recommended terminal equipment performance specifications are set out in ETSI TBR21[4] & TBR38[5].

The minimum recommended terminal equipment EMC specifications are listed in the Official Journal of the European Communities for use under the Electromagnetic Compatibility Directive (89/336). The lists are updated regularly and the terminal manufacturer is recommended to comply with the listed standards applicable to their equipment and the target electromagnetic environment.

The minimum recommended terminal equipment electrical safety specifications are listed in the Official Journal of the European Communities for use under the Low Voltage Directive (73/23/EEC). The lists are updated regularly and the terminal manufacturer is recommended to comply with the listed standards applicable to their equipment.

7. Glossary

BT	British Telecommunications plc
CLI	Calling Line Identity
CPE	Customer Premise Equipment
EC	European Community
EMC	Electromagnetic Compatibility
ETS	European Telecommunication Standard
ETSI	European Telecommunications Standards
ISDN	Integrated Services Digital Network
IVR	Interactive Voice Response
SIN	Suppliers Information Note
SM	Short Message
SMS	Short Message Service
SME	Short Message Equipment
SM-TE	Short Message Terminal Equipment
TE	Terminal Equipment

8. References

Ref	Standard	Title	Date
[1]	BT SIN413	Fixed Line SMS Service Description and Interface Specification Issue 2.0	May 2004
[2]	KCH CIP001	Technical Characteristics of the Single Analogue Line Interface	Dec 2003
[3]	KCH CIP005	Technical Characteristics of the ISDN2 and ISDN30 (I.421)	Dec 2003
[4]	KCH CIP001a	Technical Characteristics of the Supplementary Services available on the Single Analogue Line Interface	Dec 2003
[5]	ETSI TBR 21	Public Switched Telephone Network: attachment requirements for terminal1998 equipment incorporating and analogue handset function capable of supporting the justified case service when connected to the analogue interface of the PSTN in Europe	1998

Document [1] may be obtained from:

BT Technical and Regulatory Standards Evolution Unit (TRESU)
 SIN Helpline : 0800 318 601 (UK) : +44 20 7250 7420 (International)
 Web Site : <http://www1.btwebworld.com/sinet/>

Documents [2],[3] & [4] may be obtained from:

KCOM Group PLC, Regulatory Affairs and Technology Development
 Telephone: 01482 602100

Website: <http://www.kcom.com/regulatory/>

Documents [5] may be obtained from:

<http://www.etsi.org/>

9. History

Date	Issue	Comments	Author
June 2004	Issue 1.0	Initial Document	M.D.Crowther
August 2007	Issue 1.1	Company name change	M.D.Crowther
April 2016	Issue 1.2	Chnge of company name from KC to KCOM and document formatting	Amanda Woodrad