

Translation

PATENT COOPERATION TREATY

PCT/DE2003/001474



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 338.4-WOAR-1	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/DE2003/001474	International filing date (<i>day/month/year</i>) 08 May 2003 (08.05.2003)	Priority date (<i>day/month/year</i>) 28 June 2002 (28.06.2002)
International Patent Classification (IPC) or national classification and IPC H04L 12/26		
Applicant DEUTSCHE TELEKOM AG		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 8 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. (*sent to the applicant and to the International Bureau*) a total of _____ sheets, as follows:

sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. (*sent to the International Bureau only*) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

Box No. I Basis of the report

Box No. II Priority

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

Box No. IV Lack of unity of invention

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Box No. VI Certain documents cited

Box No. VII Certain defects in the international application

Box No. VIII Certain observations on the international application

Date of submission of the demand 20 December 2003 (20.12.2003)	Date of completion of this report 09 June 2004 (09.06.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/DE2003/001474

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:

- international search (under Rules 12.3 and 23.1(b))
- publication of the international application (under Rule 12.4)
- international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

The international application as originally filed/furnished

the description:

pages _____ 1-9 _____, as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

the claims:

pages _____ 1-20 _____, as originally filed/furnished

pages* _____, as amended (together with any statement) under Article 19

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

the drawings:

pages _____ 1/7-7/7 _____, as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. The amendments have resulted in the cancellation of:

the description, pages _____

the claims, Nos. _____

the drawings, sheets/figs _____

the sequence listing (*specify*): _____

any table(s) related to sequence listing (*specify*): _____

4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____

the claims, Nos. _____

the drawings, sheets/figs _____

the sequence listing (*specify*): _____

any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE 03/01474

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-20	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims		NO

2. Citations and explanations

1. Reference is made to the following documents cited in the international search report:

D1: "Access and Terminals (AT); Short Message Service (SMS) for PSTN/ISDN; Short Message Communication between a fixed network Short Message Terminal Equipment and a Short Message Service Centre" ETSI ES 201 912 V1.1.1, XX, XX, January 2002 (2002-01), XP002206404

D2: ROSAR W: "TESTSTRATEGIEN, MESSAGEGERAETE UND - SYSTEME IM GSM - TEIL 1" NTZ (NACHRICHTENTECHNISCHE ZEITSCHRIFT), VDE VERLAG GMBH, BERLIN, DE, vol. 47, no. 9, 1 September 1994 (1994-09-01), pages 654-658, XP000468041 ISSN: 0027-707X

2. The subject matter of the present **claim 1** does not involve an **inventive step** within the meaning of PCT Article 33(3). The reasons are:

D1, which is considered to represent the closest prior art, discloses (see, in particular, the passages indicated in the search report):
SMS functionalities of fixed network telephones

(page 7, section 1) and an SMS communication, at least one fixed network telephone and a Short Message Service Centre (pages 9-11, section 4), which correspond to the features of **claim 1**.

In contrast to the prior art disclosed in **D1**, **claim 1** contains the additional features of a process for testing SMS functionalities of fixed network telephones, characterized in that an SMS communication is effected between at least one fixed network telephone and a computer, wherein the computer is arranged such that in SMS communication it adopts the role of a Short Message Service and at least in some cases records the course of communication for evaluation purposes.

The problem addressed may therefore be considered that of providing a process for testing SMS functionalities of fixed network telephones.

A person skilled in the art would know that, as defined in the standard (**D1**) cited by the applicant, SMS functionality for fixed network telephones has been transferred from GSM mobile radio to PSTN/ISDN fixed networks (see also **D1**, pages 11-12, section 5.1).

In addressing the above-indicated problem, a person skilled in the art would therefore certainly search the prior art in the area of SMS functionalities for mobile radio in order to identify suitable solutions and would thereby arrive at **D2**.

D2 discloses a process for testing (title) SMS functionalities (page 656, column 3, penultimate

paragraph to page 657, column 1: testing the protocol sequence of functions and services; testing short messages (Short Message Service (SMS)) of mobile telephones (page 657, column 2: "data services must ... be tested both at the mobile station"), an SMS communication being effected between at least one mobile telephone and a computer (protocol tester; a protocol tester is a computer running an SMS protocol testing application; an SMS communication between a protocol tester and a mobile telephone is an implicit feature of short message testing), wherein the computer is arranged such that in SMS communication it adopts the role of a Short Message Service Centre (page 656, column 3, penultimate paragraph; the emulation function of the Short Message Service Centre network component is performed by a protocol tester) and at least in some cases records the course of communication for evaluation purposes (this feature is known to a person skilled in the art as a standard function of a protocol tester).

If a person skilled in the art wished to achieve the same result in testing SMS functionalities of fixed network telephones as per **D1**, he could simply use the features of **D2** to like effect in the subject matter of **D1**.

In this way he would arrive at a process as per **claim 1** without thereby being inventive.

The subject matter of **claim 1** therefore does not involve an **inventive step** within the meaning of PCT Article 33(3).

3. **Claim 2** pertains to a process for testing Short Message Service Centre functionalities in a fixed network and contains the features of **claim 1**. In addition, the process described in **claim 2** contains the features of testing Short Message Service Centre functionalities, characterized in that an SMS communication is effected between a Short Message Service Centre and a computer, wherein the computer is arranged such that in SMS communication it adopts the role of a terminal.

The problem addressed may therefore be considered that of providing a process for testing Short Message Service Centre functionalities.

D2 discloses (page 656, column 3, penultimate paragraph to page 657, column 1) the emulation or simulation of network components using a protocol tester and the testing of short messages and data services. Further, D2 discloses (page 657, column 4): "data services must be tested both at the mobile station and at the MSC or IWE, as well as at the gateway with other networks. To check the IWE in the MSC, a protocol tester that must perform three functions at the same time, namely, ... and emulation of the user application (asynchronous data, fax) is used, for example, at the A interface".

In addressing the above-indicated problem, a person skilled in the art would certainly apply the solution disclosed in D2 for testing MSC/IWE functionalities in relation to data services to testing Short Message Service Centre functionalities and use a protocol tester at the interface of the Short Message Service Centre and the network that

emulates the Short Message Service (SMS) user application.

This solution directly implies the features of an SMS communication between a Short Message Service Centre and a computer (protocol tester; see the reasoning outlined in 2.), wherein the computer is arranged such that in SMS communication it adopts the role of a terminal (as the result of emulation of the Short Message Service (SMS) user application by the protocol tester).

In this way a person skilled in the art would arrive at a process as per **claim 2** without thereby being inventive.

Consequently, the subject matter of **claim 2** does not involve an **inventive step** within the meaning of PCT Article 33(3) for the same reasons that apply to **claim 1**.

4. Independent **claims 10 and 11** pertain to a device for testing the SMS functionalities of fixed network telephones and a device for testing Short Message Service Centre functionalities in a fixed network, respectively, and contain the process features of **claims 1 and 2**, respectively, expressed as device features.

Consequently, the subject matter of **claims 10 and 11** does not involve an **inventive step** within the meaning of PCT Article 33(3) for the same reasons that apply to **claims 1 and 2**, respectively.

5. The subject matter of independent **claims 1, 2, 10**

and 11 meets the requirements of PCT Article 33(2) for **novelty**, since none of the citations discloses all the feature combinations of these claims. Consequently, dependent **claims 3-9 and 12-20**, which are referred back to **claims 1 and 2 and 10 and 11**, respectively, likewise meet the requirements of PCT Article 33(2) for **novelty**.

6. Dependent **claims 3-9 and 12-20** do not contain any features which, in combination with the features of any claim to which they refer back, meet the requirements of PCT Article 33(3) for **inventive step**.

- a) **Claims 3, 4, 13:** D1, page 11, paragraph 1
- b) **Claims 5, 14:** Communications control by a protocol tester is a standard function of protocol testers and therefore known to persons skilled in the art
- c) **Claims 6, 7, 15, 16, 17:** Recording in stereo WAV files and the use of voice editor tools are known to persons skilled in the art
- d) **Claims 8, 9, 18:** Simulation of error events, for example, checksum errors or erroneous message types, are standard functions of protocol testers and therefore

e) **Claim 12:**

known to persons skilled in the art
ISDN cards in computers, for example, personal computers, are known to persons

f) **Claims 19, 20:**

skilled in the art
A menu-controlled simulation of error events using a display device, for example, a display or monitor, connected to a protocol tester is known to persons skilled in the art

7. The subject matter of **claims 1-20** of the present application is **industrially applicable** (PCT Article 33(4)).