

APPLICATION NOTE

MD8470A

Signalling Tester

SMSCB Version

ANRITSU CORPORATION

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MD8470A Signalling Tester Application Note - SMSCB Version -



Anritsu Corporation
Measurement Business Center
Wireless Measurement Division
July 2005
Version 1.0

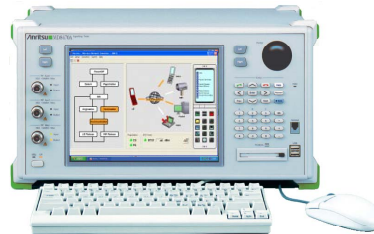
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1. Glossary of Terms



BSC:	Base Station Controller
BTS:	Base Transfer Station
CBC:	Cell Broadcast Centre
CBE:	Cell Broadcast Entity
MS:	Mobile Station
SMSCB:	Short Message Service Cell Broadcast

2. Reference Standards

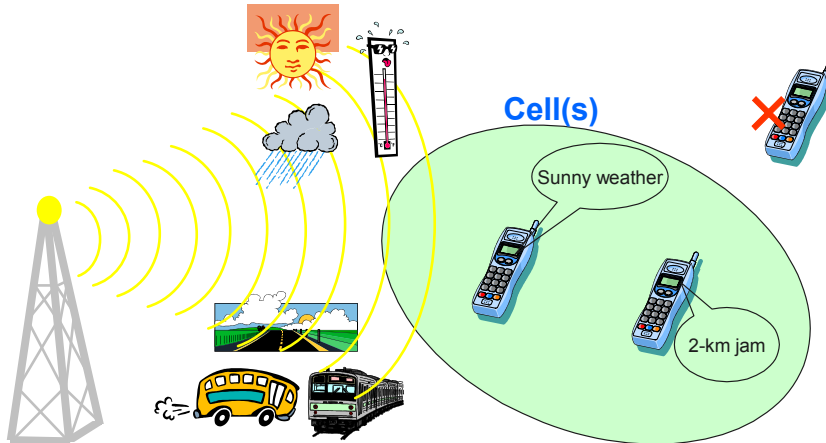


- 3GPP TS 03.41
- 3GPP TS 04.12

3. What is SMSCB?



- SMSCB is a method of sending text and binary messages such as traffic and weather information to an unspecified number of mobile units within an area.



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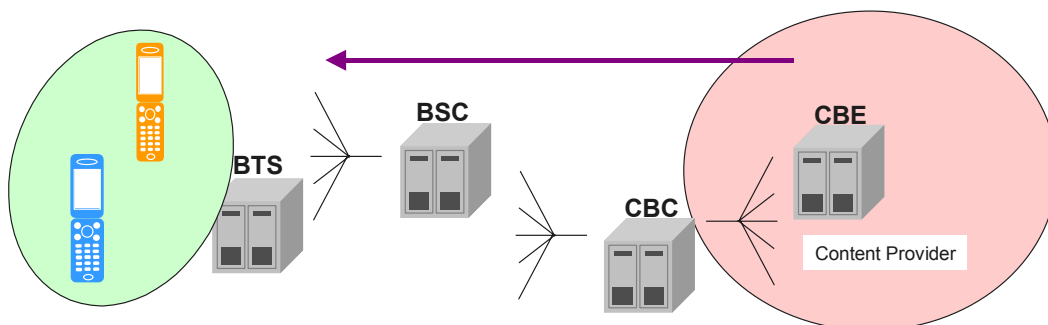
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4. SMSCB Structure



- The SMSCB Message created by the CBE is sent to mobile terminals via the CBC, BSC, and BTS.
- 22 Octets/block can handle messages of 4 blocks per page and up to 16 pages.

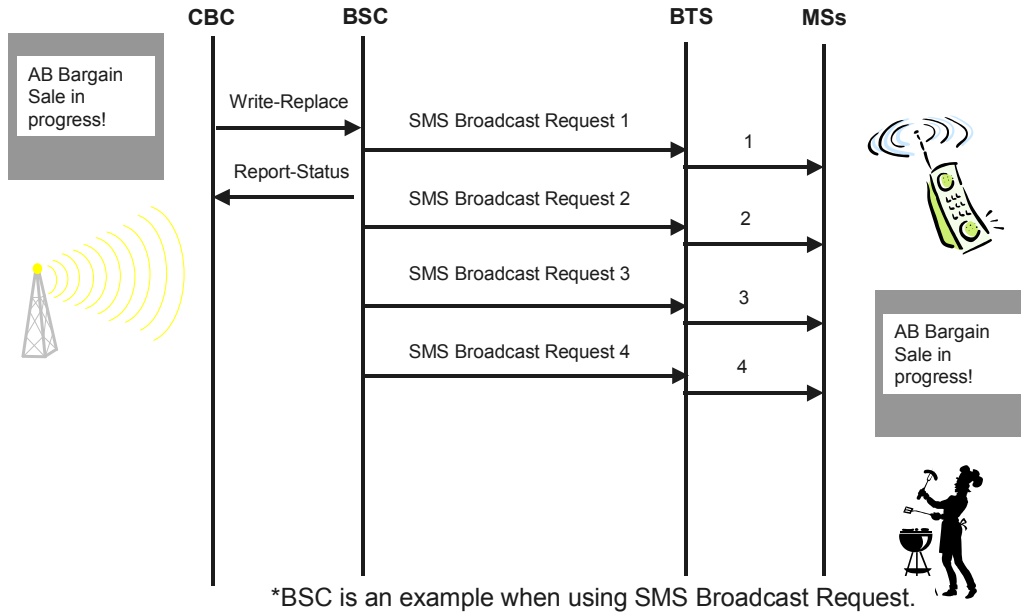


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5. Flow of SMSCB Protocol

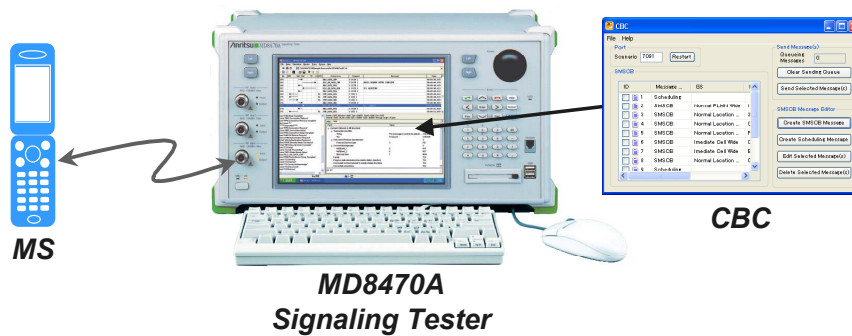


*BSC is an example when using SMS Broadcast Request.

6. Testing SMSCB using MD8470A (1/2)



- Required Hardware & Software**



6. Testing SMSCB using MD8470A (2/2)



- ✓ The MD8470A can send an SMSCB/Schedule Message from the CBC application.
- ✓ Various SMSCB tests can be performed by setting various combinations of parameters.
- ✓ Binary messages can also be sent if a scenario is used.



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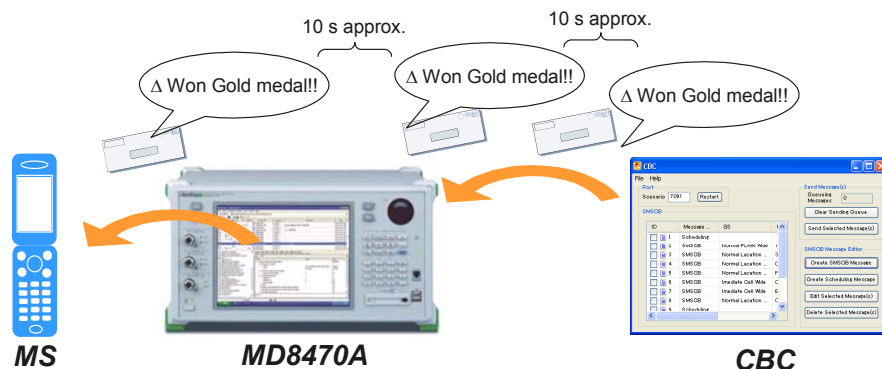
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7. Receiving SMSCB Messages



- ✓ Set the mobile unit to receive SMSCB.
- ✓ Execute CBC scenario.
- ✓ Create SMSCB Message to be sent over CBC.
- ✓ Specify resending times and interval.



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8. Advantages of Using MD8470A



■ Independent of actual network conditions

Compared to testing using an online network, the connection environment is stable and the test reproducibility is high so testing can be performed with good efficiency. Moreover, it is also possible to perform testing of base stations that do not offer an SMSCB service.

■ Able to retrieve and analyze wireless protocols

The wireless protocols used when testing can be saved, which is useful for analyzing any unexplained points.



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Specifications are subject to change without notice.

ANRITSU CORPORATION

1800 Onna, Atsugi-shi, Kanagawa, 243-8555 Japan
Phone: +81-46-223-1111
Fax: +81-46-296-1264

● U.S.A.

ANRITSU COMPANY TX OFFICE SALES AND SERVICE

1155 East Collins Blvd., Richardson, TX 75081, U.S.A.
Toll Free: 1-800-ANRITSU (267-4878)
Phone: +1-972-644-1777
Fax: +1-972-644-3416

● Canada

ANRITSU ELECTRONICS LTD.
700 Silver Seven Road, Suite 120, Kanata,
ON K2V 1C3, Canada
Phone: +1-613-591-2003
Fax: +1-613-591-1006

● Brasil

ANRITSU ELETRÔNICA LTDA.
Praça Amadeu Amaral, 27 - 1 andar
01327-010 - Paraisópolis, Sao Paulo, Brazil
Phone: +55-11-3283-2511
Fax: +55-11-3886940

● U.K.

ANRITSU LTD.

200 Capability Green, Luton, Bedfordshire LU1 3LU, U.K.
Phone: +44-1582-433280
Fax: +44-1582-731303

● Germany

ANRITSU GmbH

Grafenberger Allee 54-56, 40237 Düsseldorf, Germany
Phone: +49-211-96855-0
Fax: +49-211-96855-55

● France

ANRITSU S.A.

9, Avenue du Québec Z.A. de Courtabœuf 91951 Les
Ulis Cedex, France
Phone: +33-1-60-92-15-50
Fax: +33-1-64-46-10-65

● Italy

ANRITSU S.p.A.

Via Elio Vittorini, 129, 00144 Roma EUR, Italy
Phone: +39-06-509-9711
Fax: +39-06-502-2425

● Sweden

ANRITSU AB

Borgarfjordsgatan 13 164 40 Kista, Sweden
Phone: +46-853470700
Fax: +46-853470730

● Finland

ANRITSU AB

Teknobulevardi 3-5, FI-01530 Vantaa, Finland
Phone: +358-9-4355-220
Fax: +358-9-4355-2250

● Denmark

Anritsu AB Danmark

Korskildelund 6 DK - 2670 Greve, Denmark
Phone: +45-36915035
Fax: +45-43909371

● Singapore

ANRITSU PTE LTD.

10, Hoe Chiang Road #07-01/02, Keppel Towers,
Singapore 089315
Phone: +65-6282-2400
Fax: +65-6282-2533

● Hong Kong

ANRITSU COMPANY LTD.

Suite 923, 9/F., Chinachem Golden Plaza, 77 Mody
Road, Tsimshatsui East, Kowloon, Hong Kong, China
Phone: +852-2301-4980
Fax: +852-2301-3545

● P. R. China

ANRITSU COMPANY LTD.

Beijing Representative Office

Room 1515, Beijing Fortune Building, No. 5 North
Road, the East 3rd Ring Road, Chao-Yang District
Beijing 100004, P.R. China
Phone: +86-10-6590-9230

● Korea

ANRITSU CORPORATION

8F Hyun Juk Bldg. 832-41, Yeoksam-dong,
Kangnam-ku, Seoul, 135-080, Korea
Phone: +82-2-553-6603
Fax: +82-2-553-6604

● Australia

ANRITSU PTY LTD.

Unit 3/170 Forster Road Mt. Waverley, Victoria, 3149,
Australia
Phone: +61-3-9558-8177
Fax: +61-3-9558-8255

● Taiwan

ANRITSU COMPANY INC.

7F, No. 316, Sec. 1, NeiHu Rd., Taipei, Taiwan
Phone: +886-2-8751-1816
Fax: +886-2-8751-1817

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