

:

(54)

- 1 2 (201, 202, 203, 204, 205, 206, 207) 1 2
 (251, 252, 253, 254, 255, 256) 2 . (206, 255) 1
 1 2 . (207, 256) 1 2
 (206, 255) . - 1 2
 (206, 255) 1
 (207) 2 (256)

2

(MMS, Multimedia Messaging Service)

- " 가 , (payload) , MMS
 (GPRS, General Packet Radio Service) - (SMS, Short Messaging Service)
 (UMTS, Universal Mobile Telecommunication System) -
 - - (store - and - forward) 2 ,
 (GSM, Global System for Mobile telecommunications)

1 2 (: (terminal arrangements))(101 102) MMS

1
 : (101) UMTS (103) UMTS (102)
 GSM (104) GSM (105)
 UMTS (103) (107, CN, Core Network) UMTS
 (106, UTRAN, UMTS Terrestrial Radio Access Network) GSM (104)
 (108, BSS, Base Station Subsystem) (109, MSC, Mobile Switching
 Centre)가 UTRAN

(B) BSS (Base Station Control
 (Base Transceiver Stations)
 BSS(108)가 UTRAN(106) CN

1 UTRAN(106) BSS(108) GPRS (110 111, SGSN, S
 erving GPRS Support Node) . 2 SGSN GPRS (trunk lines) , GP
 RS (112, GGSN, Gateway GPRS Support Node) ,
 (MMSC, Multimedia Messaging Service Center) SMS (1
 01) (102) 가 MMSC MMS UTRAN(106)
 (MMSC가 MMSC). MMSC(112)
 MMS SGSN(110) MMS MMSC
 (102) (102) , MMSC
 SGSN(111) BSS(108) (102) , (102)가
 가 (shut off), , 가
 가 (obsolete) MMSC
 MMSC (101) (acknowledgement)

MMS (PDP, Pac
 ket Data Protocol) (Contexts) - MMSC , MMSC ,
 MMS (MMS - TP, Multimedia Messaging Service - Transport Protocol) 가
 MMS ; MMS - TP (charging scheme) 가 MMS PDP
 MMS (operators) MMS
 MMS 가 MMS PDP
 , MMS 가 MMSC PDP
 PDP 가

MMSC MMS
가

가
(framework)

, DP (IP, Internet Protocol) PDP MMSC IP , , 가 , P

1 , , 1 2
;

1 2

1 2

1 2

2 , ; ; / ; ;

/ ,

가

3 , ; ;

가

(SGSN, Serving GPRS Support Node) (MMSC, Multimedia Messaging Service Center)

(UE, User Equipment) , BSS UTRAN . BSS UTRAN . UMTS

(B)

MS 1(201, Layer 1), (202, Medium Access Control), (203, Radio Link Control), (204, Logical Link Control), (205, Subnetwork Dependent Convergence Protocol), (206, Internet Protocol) - (207, Multimedia Messaging Service - Transport Protocol)

" MS" : 가 " MS"

IP (206) MMS - TP (207) MMS - TP (207) (206) ; (UDP, User Datagram Protocol), (TCP, Transport Control Protocol)

BSS MS 3 (211, 212 213) , BSS BSS 3 (221, Layer 1), (222, Frame Relay layer) BSS GPRS (23, 232, 233) , MS (peer entity) (234, Logical Link Control layer) . SGSN 1(241, Layer 1), 2(242, Layer 2) (243, Internet Protocol) . SGSN SNDCP (235, SNDCP half) GP RS (244, GPRS Tunneling Protocol half) 가 . MMSC (251), 2(252), 1 (253), GPRS (254), 2 (255) - (256) 2 (256)

, GGSN/MMSC GGSN(, 251 255) MMSC (, 256)

3, 4 5 가 (mobile - originate PDP , MS

MS MMSC MMS 301 MS 가 PDP 4

IP MMS 가 MS

* (401, NSAPI, Network Service Access Point Identifier) MS
 . NSAPI GPRS/UMTS PDP
 (TLLI, Temporary Logical Link Identity) 가 (IMSI, International Mobile Subscriber Identity) (4).

* PDP (402, PDP Type) IP PDP 가 가

* PDP (403, PDP Address field) 가 GGSN
 GGSN/MMSC MS IP

* (404, APN, Access Point Name) MS
 , " MMSC ,
 " APN . AP
 N " MMSC" . SGSN SGSN MMSC MMSC GGSN
 가 . (MMSC (functionality) GGSN) , GGSN
 N - APN - PDP MMS MMS

* QoS (405, QoS Requested) (QoS (Quality of Service)) MS
 , 2 가 , GPRS (backbone)
 (UDP, User Datagram Protocol) RLC& LLC
 . MMS (precedence)
 (dropping) 가

* PDP (406, PDP Configuration Options field) , MS
 MMSC . MS - MMSC 가 MMS - TP
 MS - MMSC . MMS - TP
 (MS가 IP), PDP MMSC

302 , BSS - PDP
 SGSN (route) . 303 , SGSN
 GGSN/MMSC MMSC GGSN PDP
 PDP , PDP , QoS (Negotiated), (TID, Tunnel Identifier),
 (= " IP"), PDP (MS) PDP (PDP
 MMS) .

304 , GGSN/MMSC , 305 , PDP 가
 . 5 가 :

* PDP (TID, Tunnel Identifier) (501) PDP SGSN

* PDP (502) MS IP ; IP
 , MS가 PDP .

* BB , (Reordering Required), QoS (Negotiated) (Cause) (503, 504, 5
 05 506) GPRS .

* , GGSN/MMSC IP () . 가 M
 MSC IP - () PDP (507) , T
 CP UDP가 UMTS/GPRS (bearer) , MMS PDP
 (port) () MMSC IP (TCP
 UDP) 가 .

SGSN PDP BSS MS PDP
 (306); MS 307 PDP , PDP
 NSAPI, QoS , (Radio Priority Level) PDP
 PDP MMSC(GGSN) . PDP
 () (PDP) MS MMS- . , MS IP - 가
 MMS

() 가 , GGSN/MMSC GGSN MMSC MMSC IP
 () () MMS PDP GGSN
 IP (GPRS) , 3
 308 MMSC MS가 MMSC (MS - MMS
 C) IP 가 .
 MMSC가 (visited) MS

* MS MMSC가 , (, M
 MSC) MMSC MMSC - MMSC
 , MMSC가 MMSC (H
 LR, Home Location Register) MMSC HLR 2 가
 ; MMS (Update MMS Location) MMS (Send Routing Info for MMS).
 HLR MMSC , MMSC
 MMSC IP () HLR
 MMSC (Serving MMSC Address)가 HLR (records) 가 .

* MMSC (foreign agent) : MMSC " (home agent)" MMSC ((Mobile) IP(6(Ipv6, Internet Protocol version 6)) /MS HLR

* MMSC MMS , MMSC가 MS가 IP

MS MMSC PDP MS MMS 가 , M (practice) , MS PDP MMSC . GPRS , MMSC가 가 MS MS 가 , 3 PDP MS

(alerting arrangement)가 MS MMS 가 MMSC MS

GPRS가 , MMSC - (MMSC - originating) PDP (MS - PDP MS MS IP MS SGSN - GGSN/MMSC MMSC IP () MMSC . MS

6 MS(UE)(601), BSS UTRAN(602), SGSN(603) GGSN/MMSC(604) (612), / (613), / (614), (615) (616) / (613) (614) (615) (615) ; (616) / MS (615)

가 2 MS (615)

MMSC RS ((21) . 2) (tearing down) (623) GP (trunk line) (622) 가 - MMSC (623) - 가 IP (624, dynamic address allocation unit) PDP MMSC IP ; , GGSN (functionality) MMSC PDP MMSC IP () (624)

7 MS MMS - TP, IP (703) 가 IP PDP (setting up) MMS - TP (702) (701) 1 (primitive) ; PDP APN, QoS PDP ; IP (702) PDP (704, se
 IP (702) PDP (704) , 2 (704) ,
 3 (705) 가 PDP , APN, QoS PDP , IP (702) , IP (702)
 4 (706) MMS - TP (701)

PDP (701) (707) IP , IP MMS - TP (708)

MMS IP PDP 가 MS (703 704) 가
 GGSN/MMSC IP 7 IP (702) GGSN/MMSC (tearing down) PDP 2
 IP . IP PDP

(57)

1.

1 (201, 202, 203, 204, 205, 206, 207) 2
 (251, 252, 253, 254, 255, 256) ;

1 2 (peer entity)
 (206, 255) , -

1 2 (206, 255)
 (207, 256)

(207) (206, 255) (256) -

2.

1 , - 가
 ; ,

3.

2 (routing device) 1 (primary request) , 1 (general indication) ;
 1 - (secondary request)

4.

3 PDP (301, Activate PDP Context Request message) ,
 PDP (301) ,
 PDP (401, Network Service Access Point Identifier);
 PDP (402, PDP Type value);
 PDP (404, Access Point Name); (dummy)
 PDP QoS (405, QoS Requested field);
 PDP (406, PDP Configuration Options fie
 Id)

2 PDP (Create PDP Context Request message)

5.

2 , 가 1 ;
 1 - 2

6.

5 , 1 PDP (507) PDP
 , 2 PDP (Accept) -

7.

1 6 , 가

8.

(615, control entity)

(206)

(206)

(207)

(207)

9.

8
on device)

(206)

(communication device)

(presentati

(207)

10.

(623, control entity)

(255)

(255)

(256)

(256)

11.

10

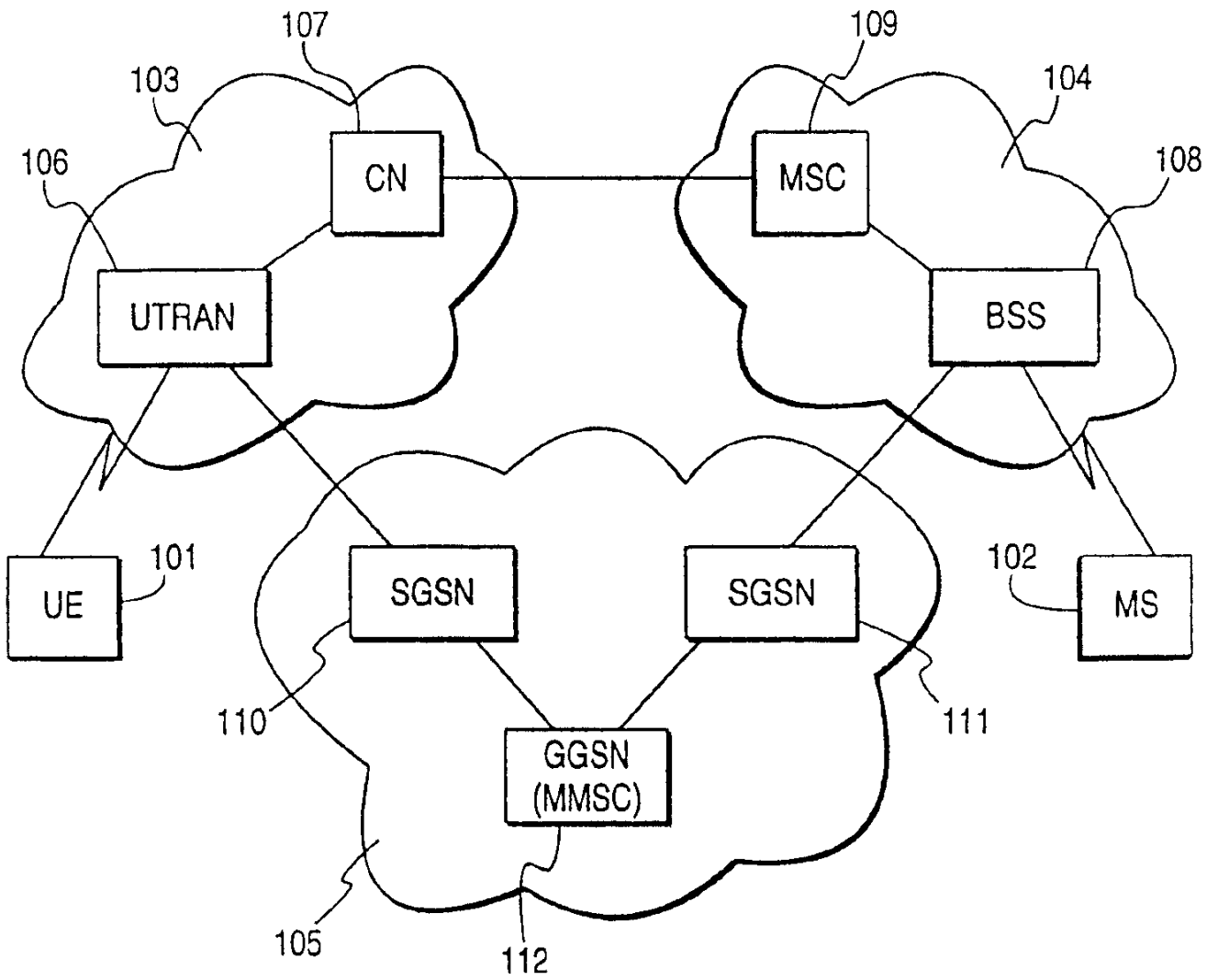
(multimedia messaging device)

(node device)

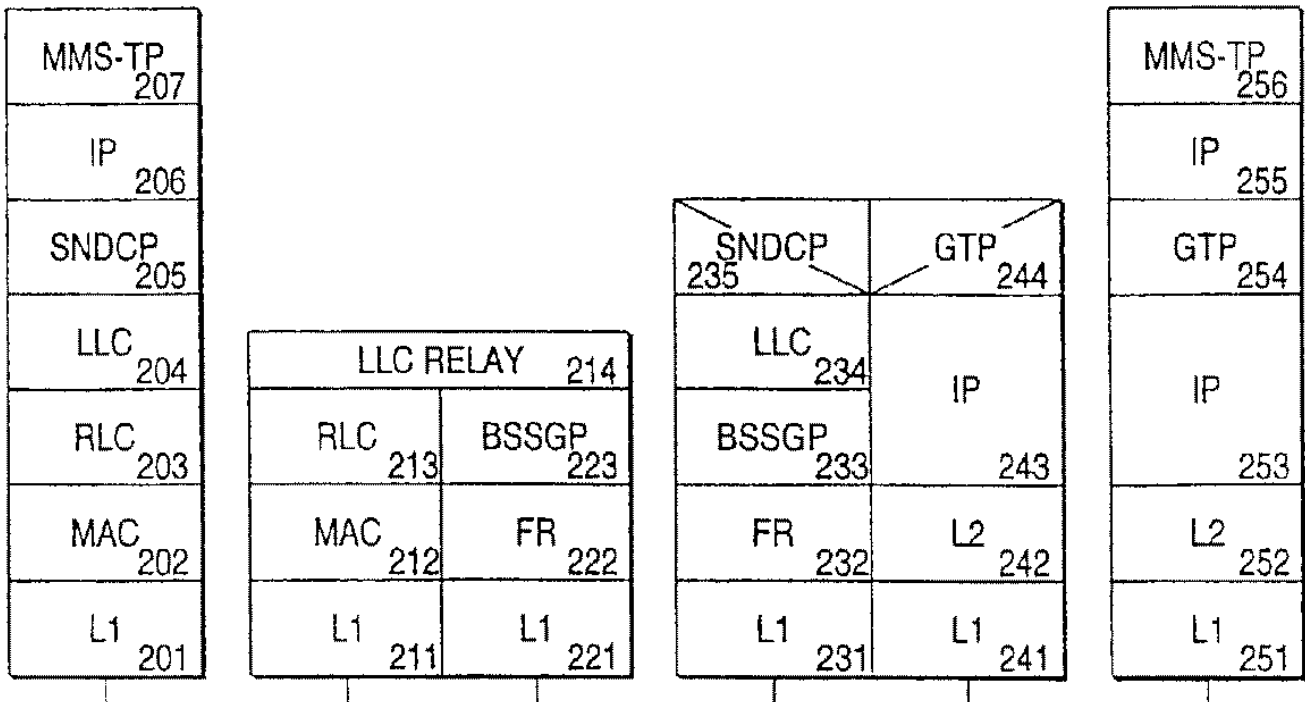
(256)

(255)

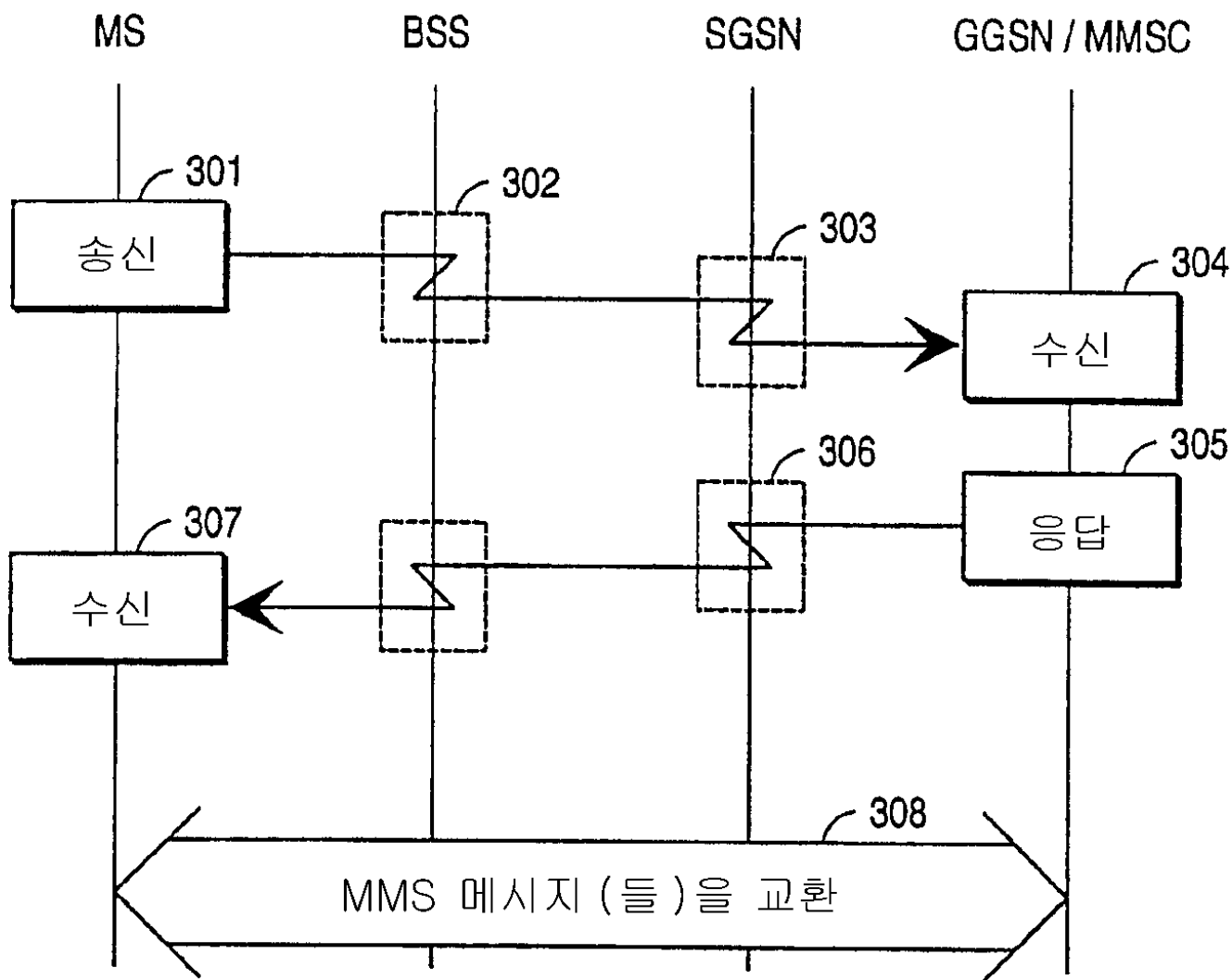
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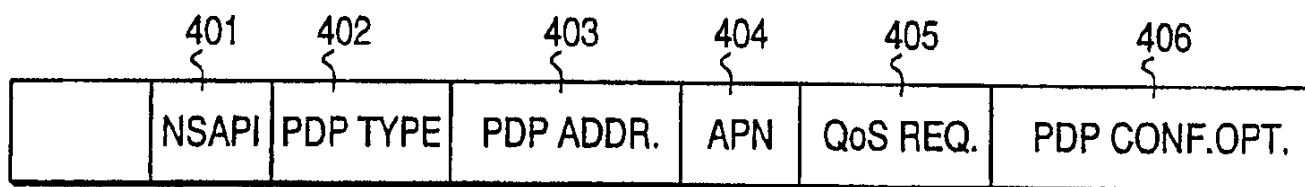
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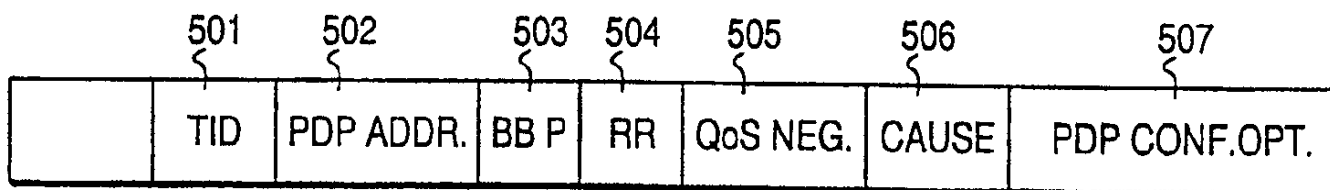
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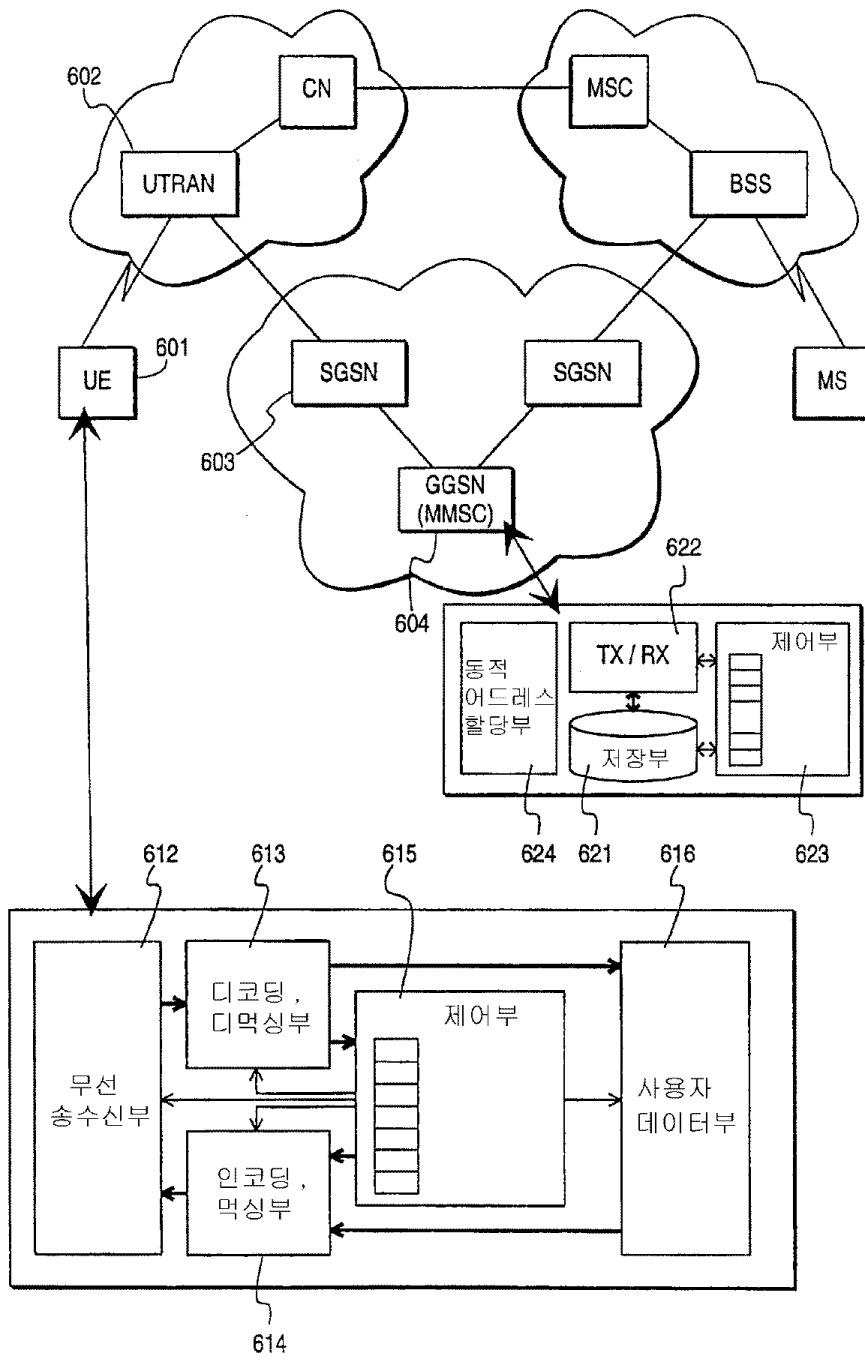


4



5





7

