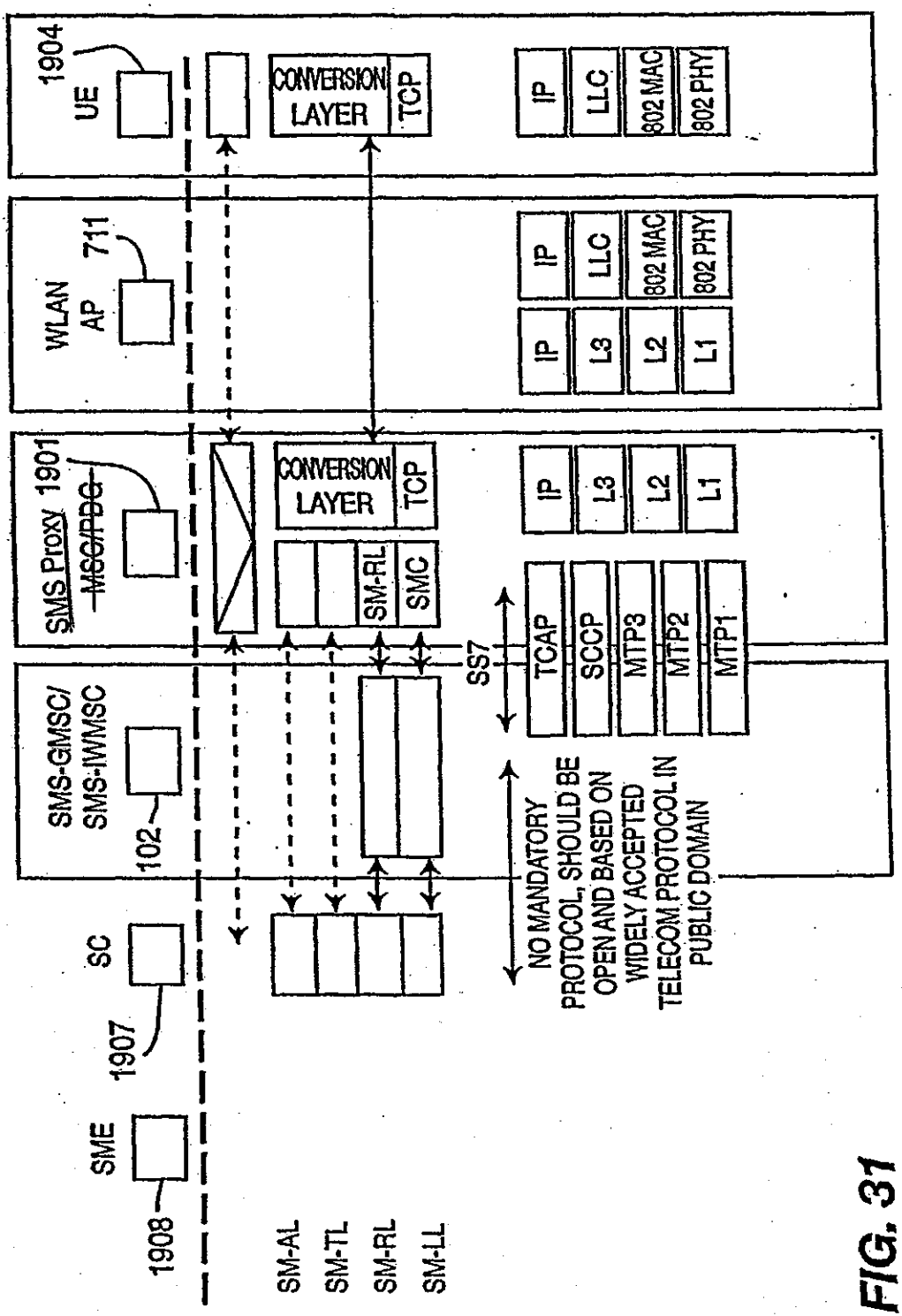

1904
UE
CONVERSION LAYER
TCP
IP
LLC
802 MAC
802 PHY
WLAN AP
711
IP
L3
L2
L1
SMS Proxy
1901
MSC/PDC
SM-RL
SMC
SS7
TCAP
SCCP
MTP3
MTP2
MTP1
SMS-GMSC/
SMS-IWMSC
102
SC
1907
SME
1908
SM-AL
SM-TL
SM-RL
SM-LL
NO MANDATORY PROTOCOL, SHOULD BE OPEN AND BASED ON WIDELY ACCEPTED TELECOM PROTOCOL IN PUBLIC DOMAIN

FIG. 31

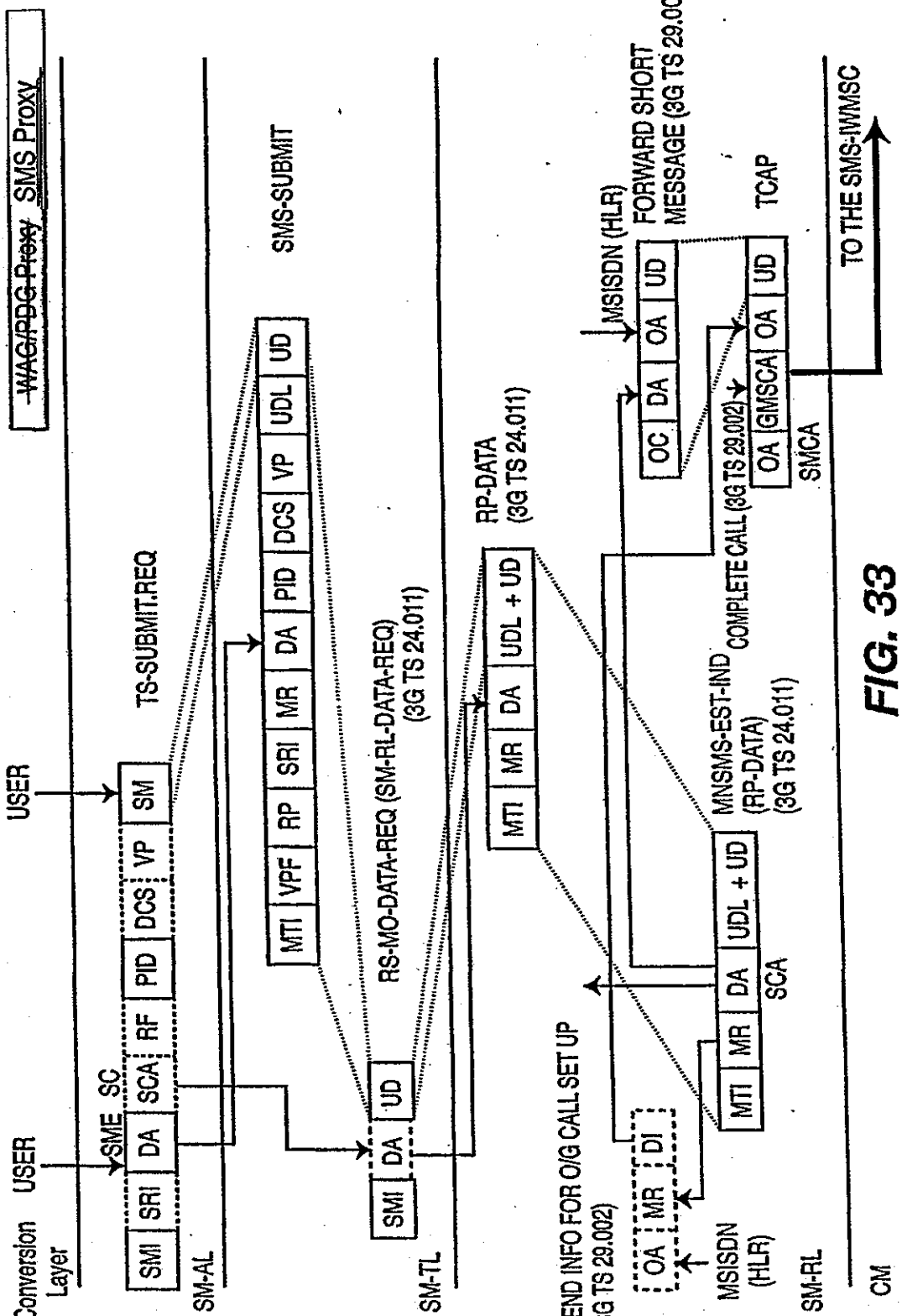

WAG/PDG Proxy SMS Proxy
USER
TS-SUBMIT.REQ
SMS-SUBMIT
SME
SC
SMI
SRI
DA
SCA
RF
PID
DCS
VP
SM
MTI
VPF
RP
SRI
MR
DA
PID
DCS
VP
UDL
UD
Conversion Layer
USER
SM-AL
RS-MO-DATA-REQ (SM-RL-DATA-REQ)
(3G TS 24.011)
SMI
DA
UD
SM-TL
RP-DATA
(3G TS 24.011)
MTI
MR
DA
UDL + UD
MSISDN (HLR)
FORWARD SHORT MESSAGE (3G TS 29.002)
OC
DA
OA
UD
TCAP
OA
GMSCA
OA
UD
SMCA
COMPLETE CALL (3G TS 29.002)
MNSMS-EST-IND
(RP-DATA)
(3G TS 24.011)
MTI
MR
DA
UDL + UD
SCA
SEND INFO FOR O/G CALL SET UP
(3G TS 29.002)
OA
MR
DI
MSISDN
(HLR)
SM-RL
CM
TO THE SMS-IWMSC

FIG. 33

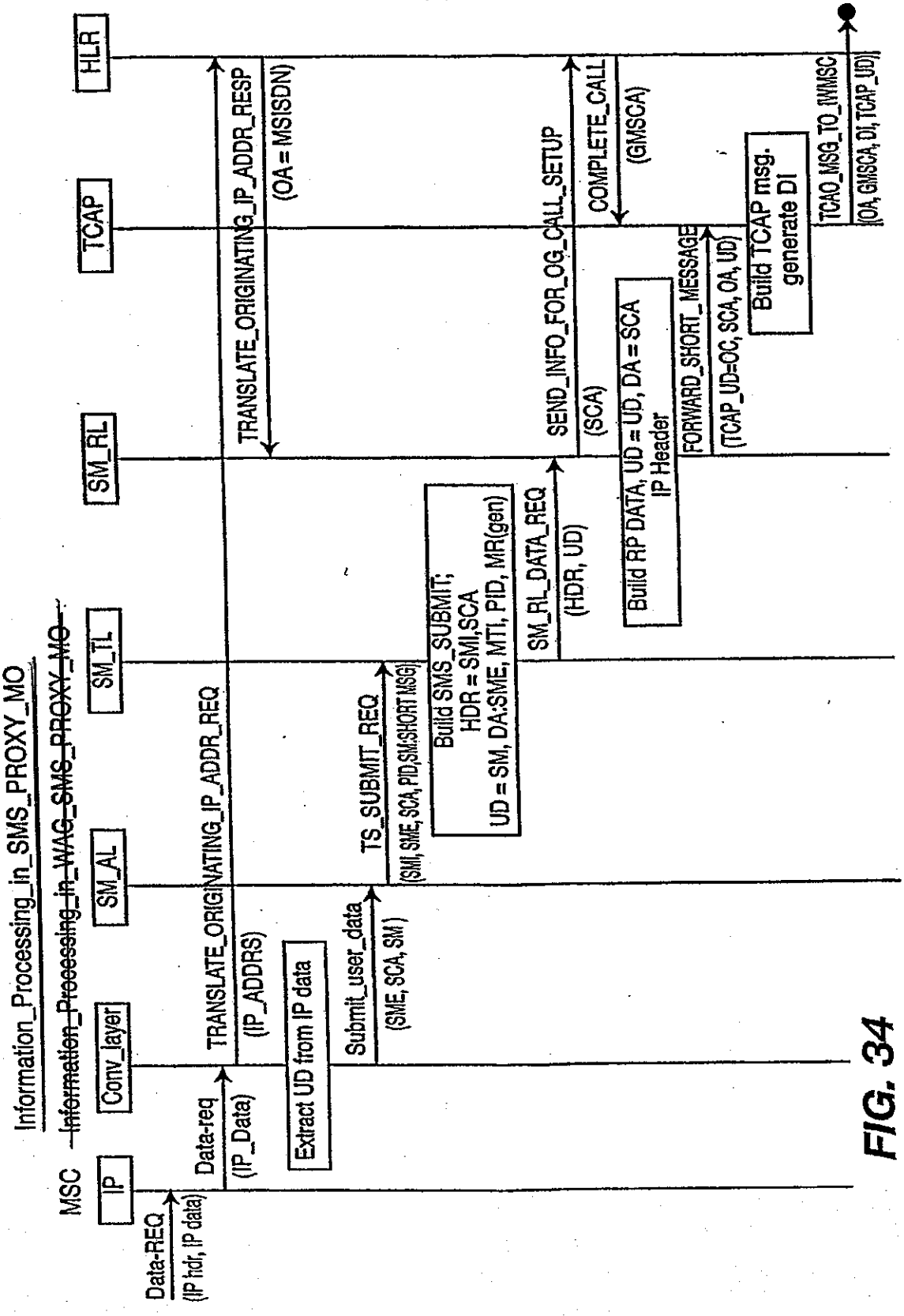

Information_Processing_in_SMS_PROXY_MO
~~Information_Processing_in_WAG_SMS_PROXY_MO~~
MSC
IP
Conv_layer
SM_AL
SM_TL
SM_RL
TCAP
HLR
Data-REQ
(IP hdr, IP data)
Data-req
(IP_Data)
TRANSLATE_ORIGINATING_IP_ADDR_REQ
(IP_ADDRS)
Extract UD from IP data
Submit_user_data
(SME, SCA, SM)
TS_SUBMIT_REQ
(SMI, SME, SCA, PID,SM:SHORT MSG)
Build SMS_SUBMIT;
HDR = SMI,SCA
UD = SM, DA:SME, MTI, PID, MR(gen)
SM_RL_DATA_REQ
(HDR, UD)
TRANSLATE_ORIGINATING_IP_ADDR_RESP
(OA = MSISDN)
SEND_INFO_FOR_OG_CALL_SETUP
(SCA)
Build RP DATA, UD = UD, DA = SCA
IP Header
FORWARD_SHORT_MESSAGE
(TCAP_UD=OC, SCA, OA, UD)
COMPLETE_CALL
(GMSCA)
Build TCAP msg.
generate DI
TCAO_MSG_TO_IWMSC
[OA, GMSCA, DI, TCAP_UD)]

FIG. 34

SMS Proxy
~~WAG/PDG Proxy~~
Conversion Layer
To be displayed to the USER
To be displayed to the USER
SM-AL
SMI
SRI
DA
SCA
SME
SC
RP
PID
DCS
MMS
SCTS
SM
TS-DELIVER.IND
SM-TL
MTI
MMS
RP
SRI
OA
PID
DCS
SCTS
UDL
UD
SMS-DELIVER
SMI
OA
UD
SM-RL-DATA-IND (RS-MT-DATA.IND (3G TS 24.011)
SM-RL
MTI
PRI
MR
OA
UDL + UD
RP-DATA (3G TS 24.011)
MNSMS-EST-IND (3G TS 24.011)
DI
MR
SEND-INFO FOR O/G CALL SET UP (3G TS 29.002)
OC
DA
OA
UD
MSM
FORWARD SHORT MESSAGE (3G TS 29.002)
MTI
MR
OA
UDL + UD
SCA
RP-DATA (3G TS 24.011)
GMSCA
DA
DI
UD
TCAP
CM
FROM GMSC

FIG. 35

Information_Processing_in_SMS_PROXY_MT

MSC ~~Information_Processing_in_WAG_SMS_PROXY_MT~~

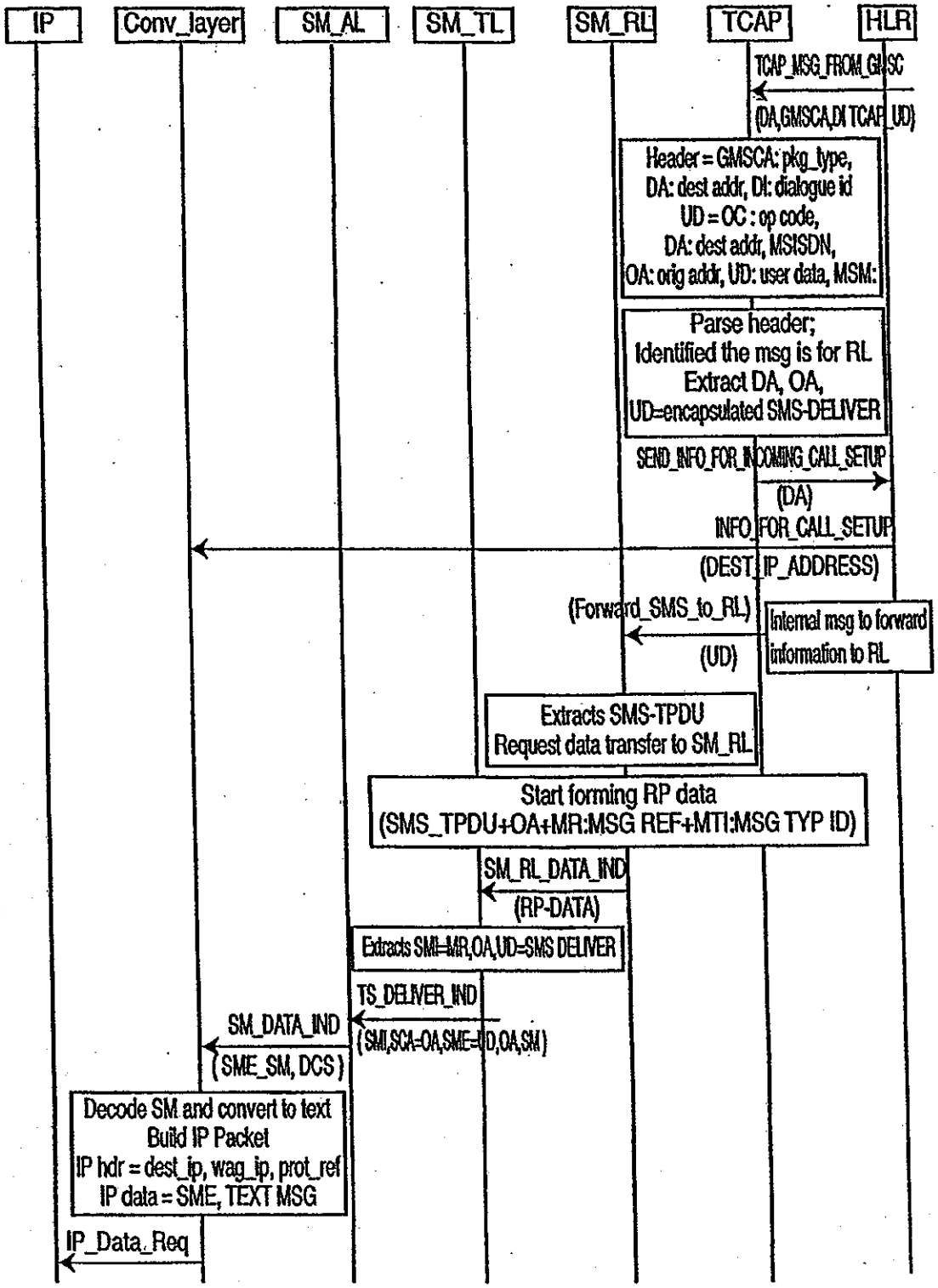


FIG. 36