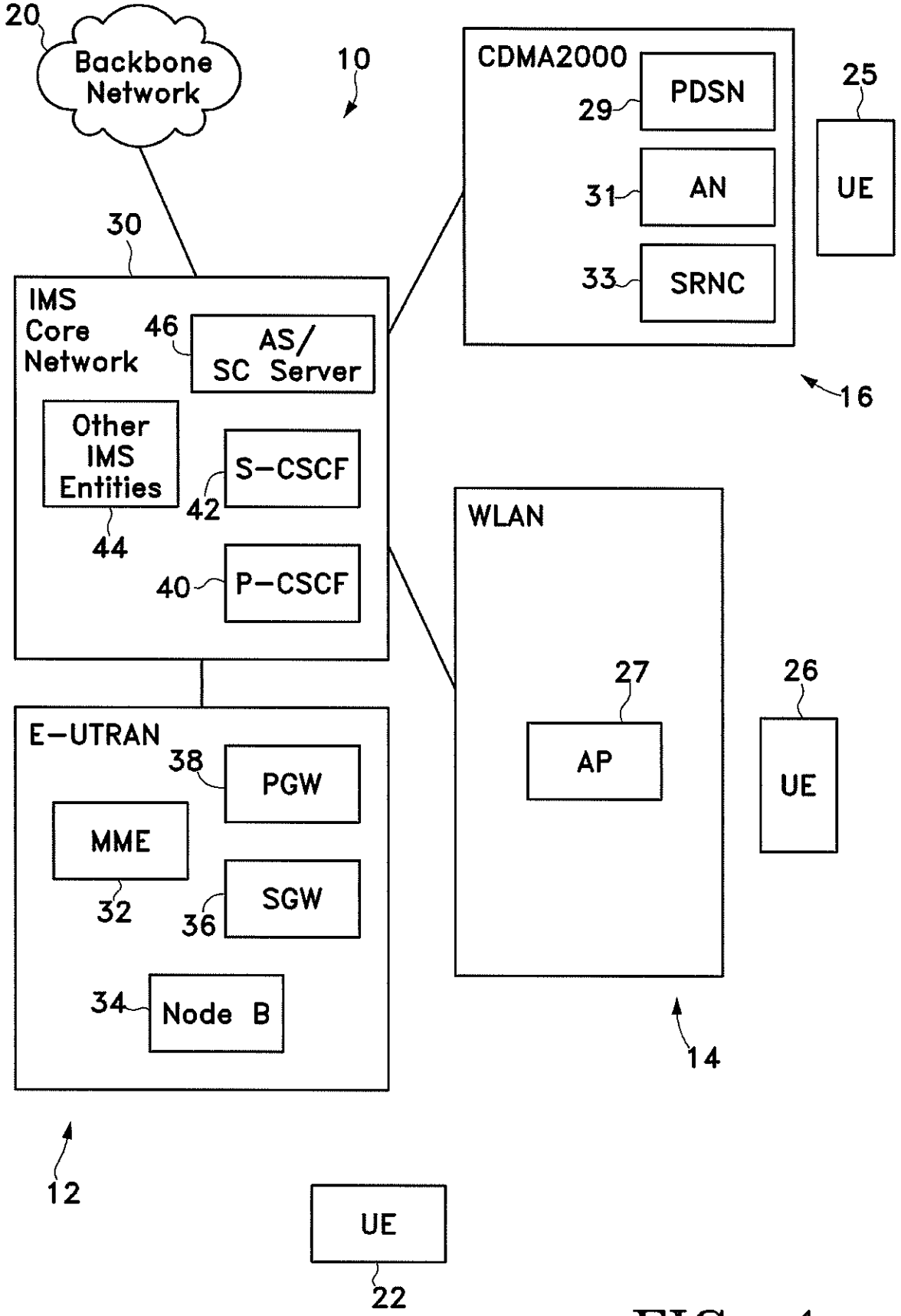

20
Backbone Network
10
CDMA2000
29
PDSN
25
31
AN
UE
33
SRNC
30
IMS Core Network
46
AS/ SC Server
16
Other IMS Entities
S-CSCF
42
44
40
P-CSCF
WLAN
27
26
AP
UE
E-UTRAN
38
PGW
MME
32
SGW
36
34
Node B
14
12
UE
22

FIG. 1

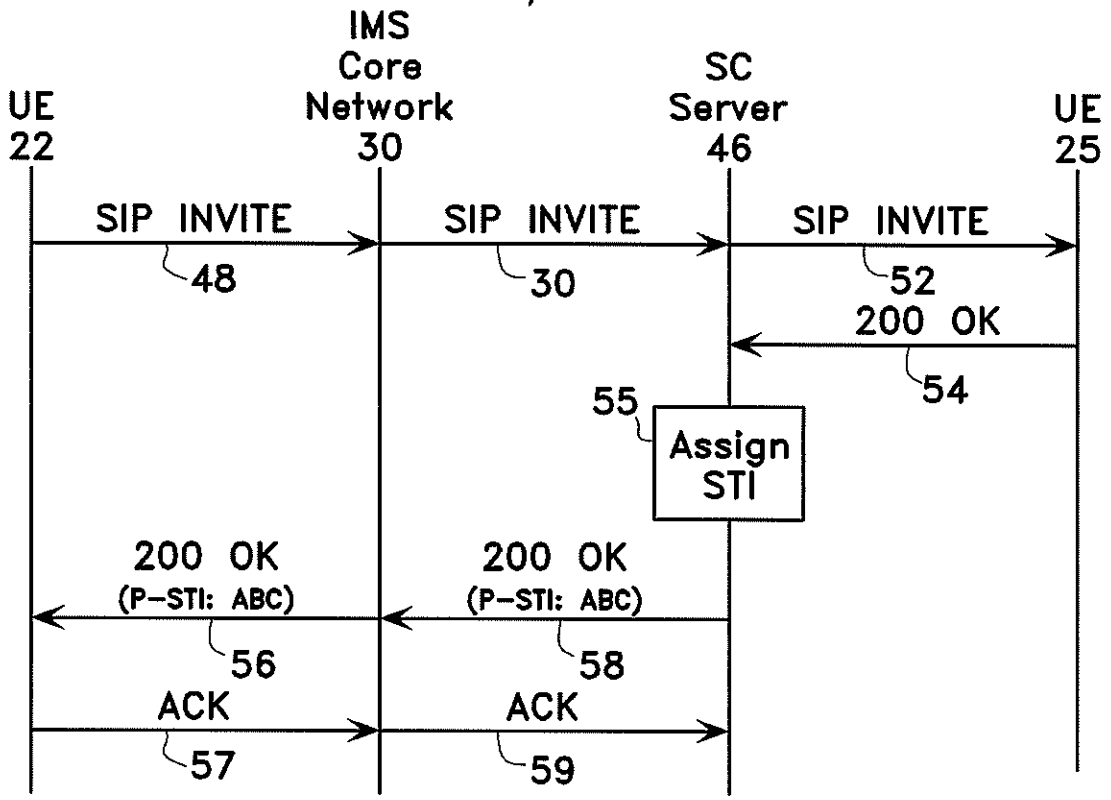

UE
22
IMS
Core
Network
30
SC
Server
46
UE
25
SIP INVITE
48
SIP INVITE
30
SIP INVITE
52
200 OK
54
55
Assign
STI
200 OK
(P-STI: ABC)
56
200 OK
(P-STI: ABC)
58
ACK
57
ACK
59

FIG. 2

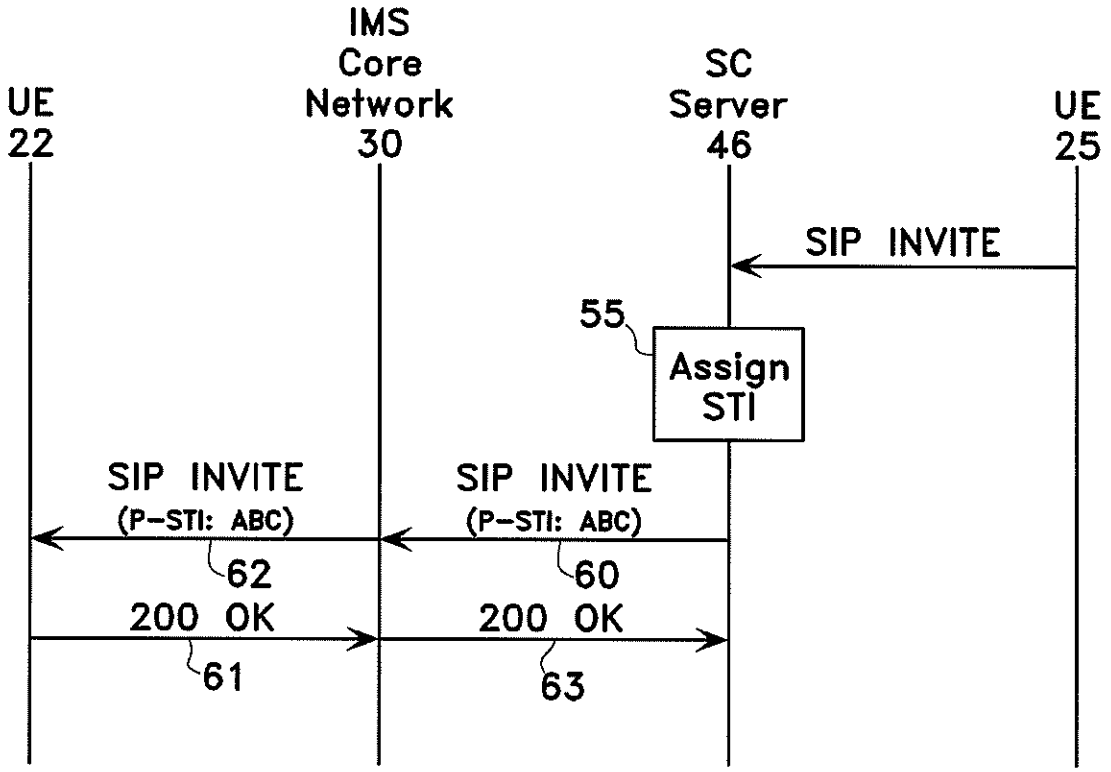

UE
22
IMS
Core
Network
30
SC
Server
46
UE
25
SIP INVITE
55
Assign
STI
SIP INVITE
(P-STI: ABC)
62
SIP INVITE
(P-STI: ABC)
60
200 OK
61
200 OK
63

FIG. 3

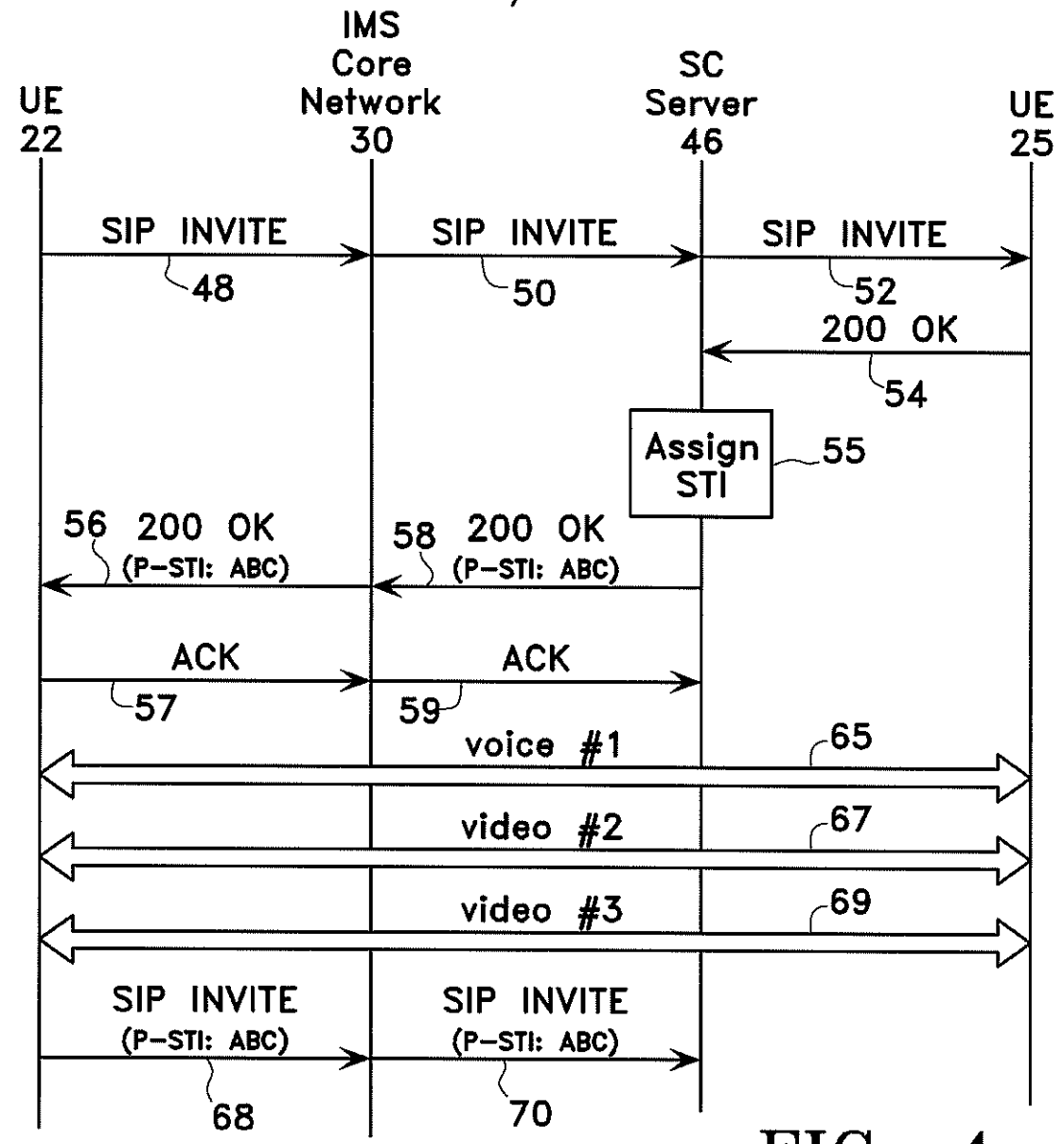

UE
22
IMS
Core
Network
30
SC
Server
46
UE
25
SIP INVITE
48
SIP INVITE
50
SIP INVITE
52
200 OK
54
Assign
STI
55
56 200 OK
(P-STI: ABC)
58 200 OK
(P-STI: ABC)
ACK
57
ACK
59
voice #1
65
video #2
67
video #3
69
SIP INVITE
(P-STI: ABC)
68
SIP INVITE
(P-STI: ABC)
70

FIG. 4

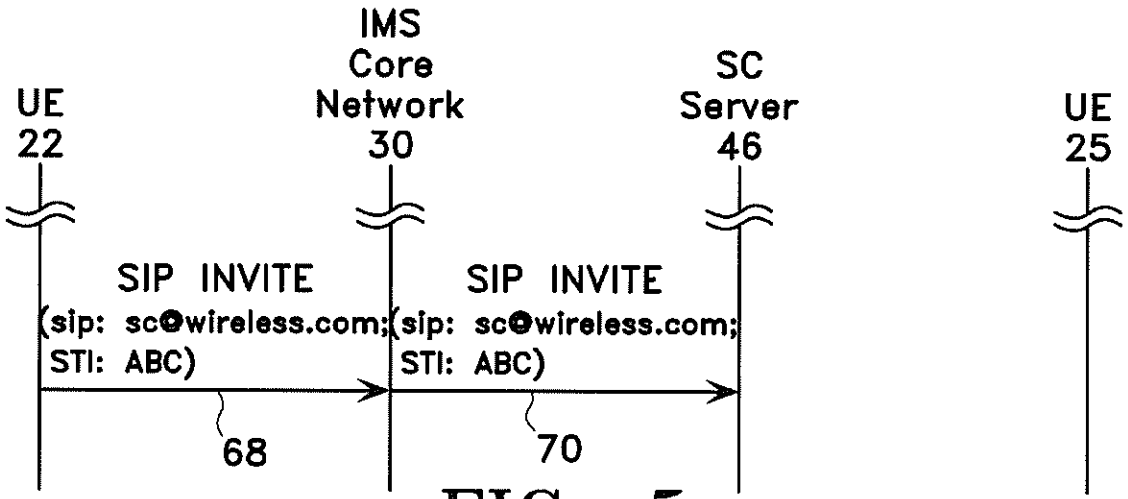

UE
22
IMS
Core
Network
30
SC
Server
46
UE
25
SIP INVITE
(sip: sc@wireless.com;
STI: ABC)
68
SIP INVITE
(sip: sc@wireless.com;
STI: ABC)
70

FIG. 5

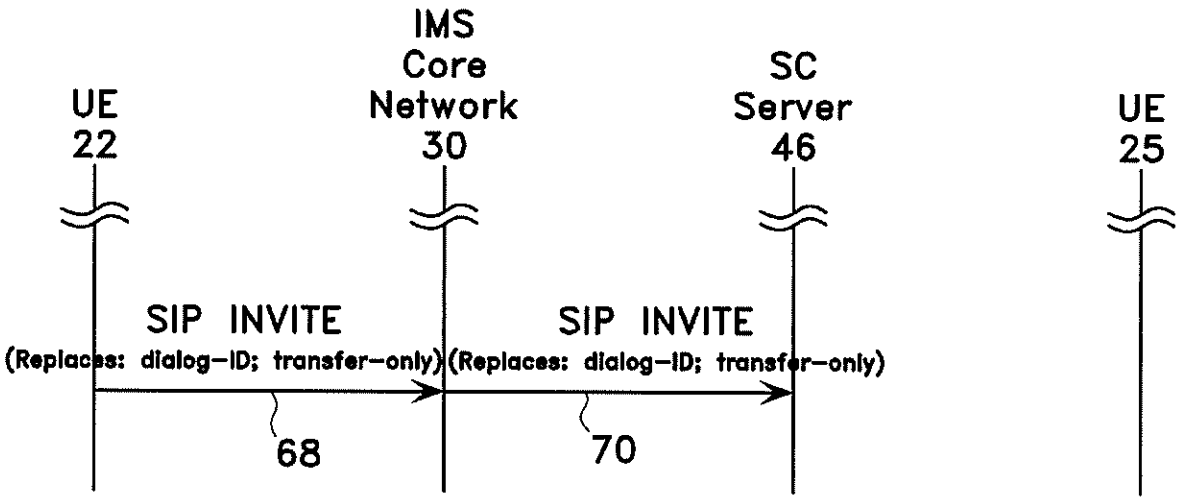

IMS
Core
Network
30
SC
Server
46
UE
22
UE
25
SIP INVITE
(Replaces: dialog-ID; transfer-only)
SIP INVITE
(Replaces: dialog-ID; transfer-only)
68
70

FIG. 6

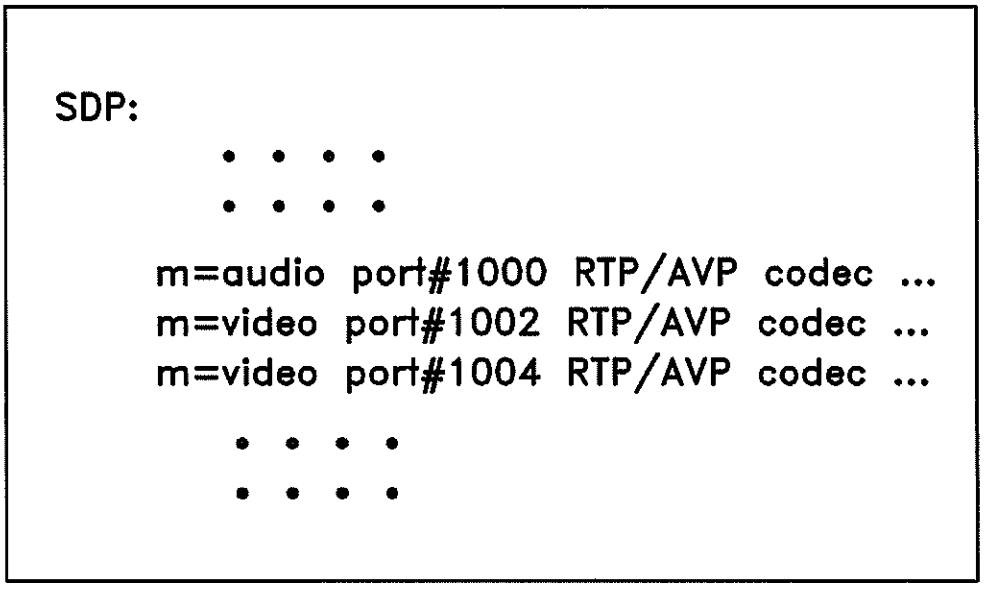

SDP:
m=audio port#1000 RTP/AVP codec ...
m=video port#1002 RTP/AVP codec ...
m=video port#1004 RTP/AVP codec ...

FIG. 7

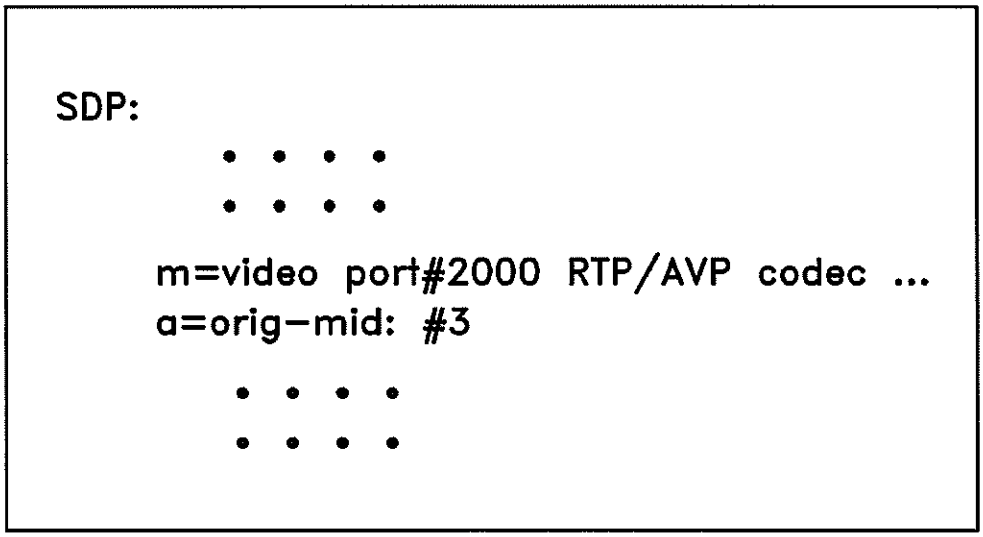

SDP:
m=video port#2000 RTP/AVP codec ...
a=orig-mid: #3

FIG. 8

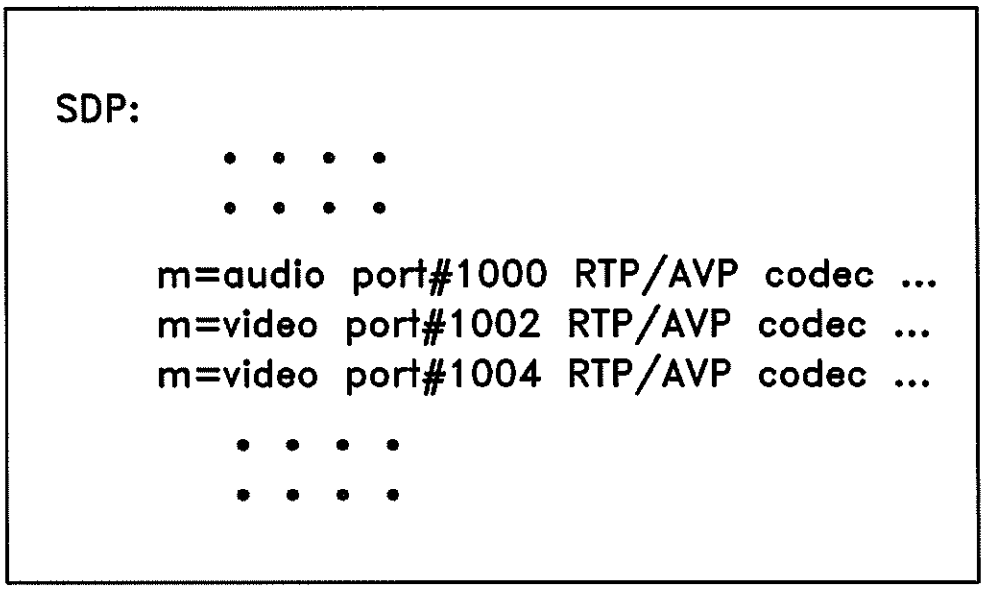

SDP:
m=audio port#1000 RTP/AVP codec ...
m=video port#1002 RTP/AVP codec ...
m=video port#1004 RTP/AVP codec ...

FIG. 9

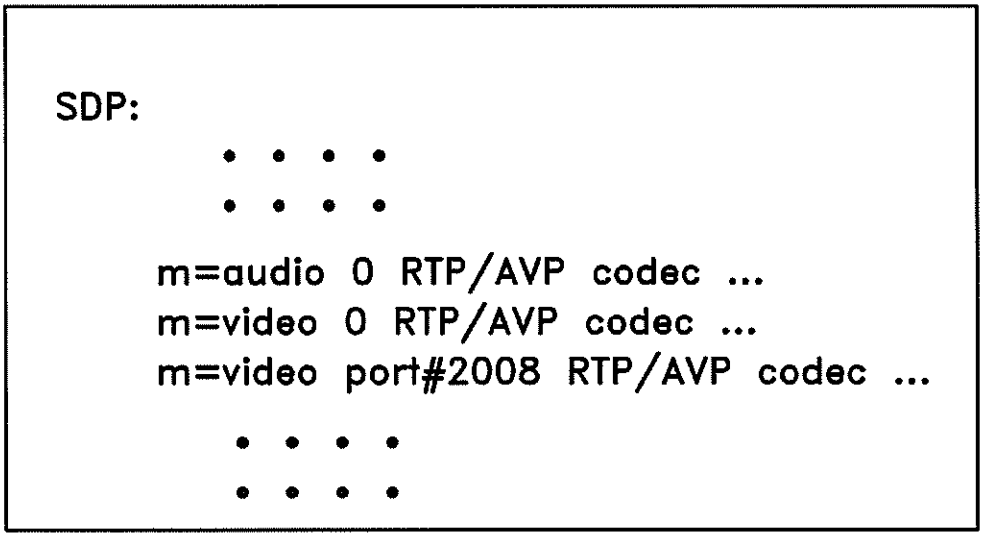

SDP:
m=audio 0 RTP/AVP codec ...
m=video 0 RTP/AVP codec ...
m=video port#2008 RTP/AVP codec ...

FIG. 10

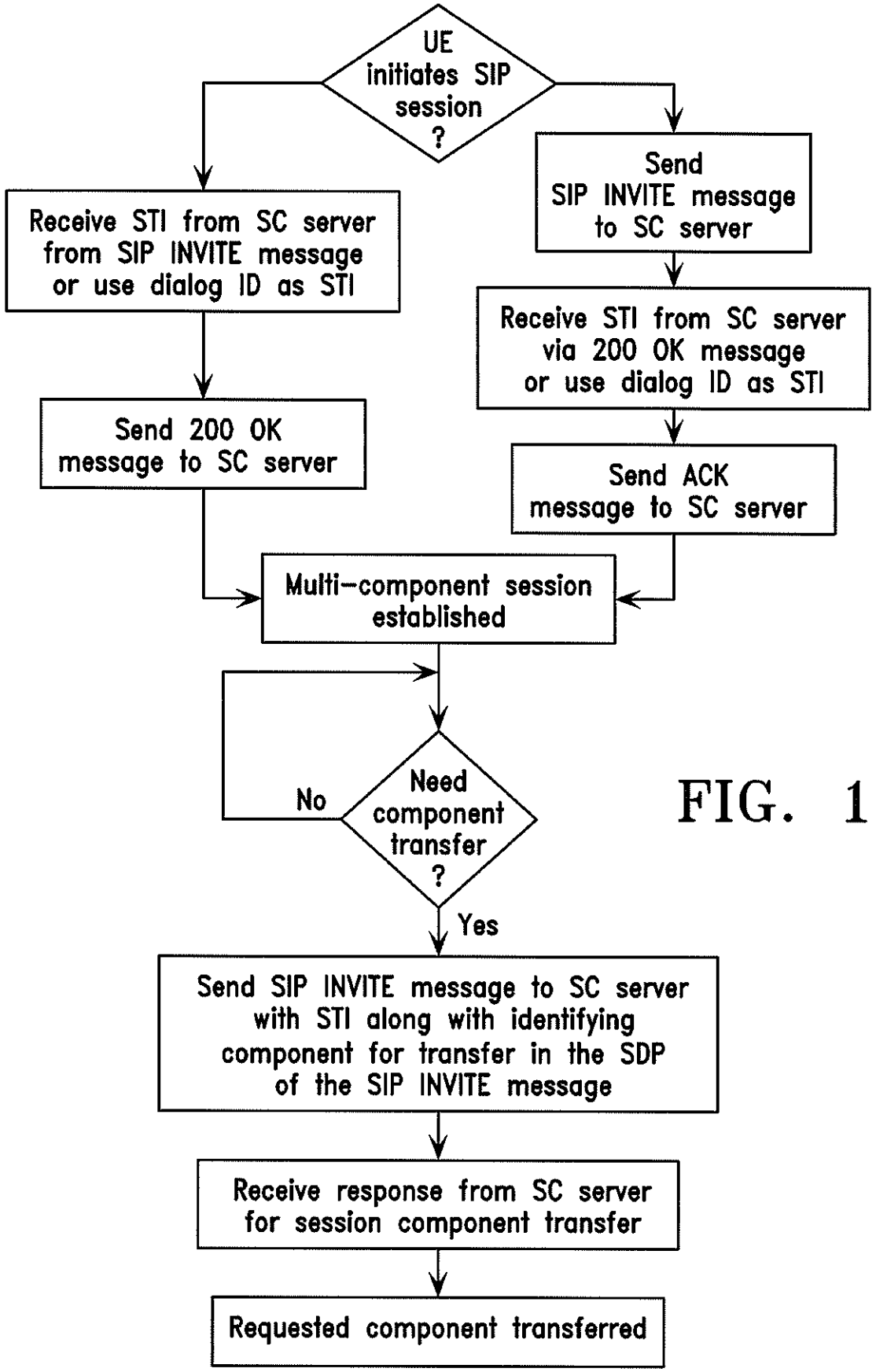

UE initiates SIP session ?
Receive STI from SC server from SIP INVITE message or use dialog ID as STI
Send 200 OK message to SC server
Send SIP INVITE message to SC server
Receive STI from SC server via 200 OK message or use dialog ID as STI
Send ACK message to SC server
Multi-component session established
Need component transfer ?
No
Yes
Send SIP INVITE message to SC server with STI along with identifying component for transfer in the SDP of the SIP INVITE message
Receive response from SC server for session component transfer
Requested component transferred

FIG. 11

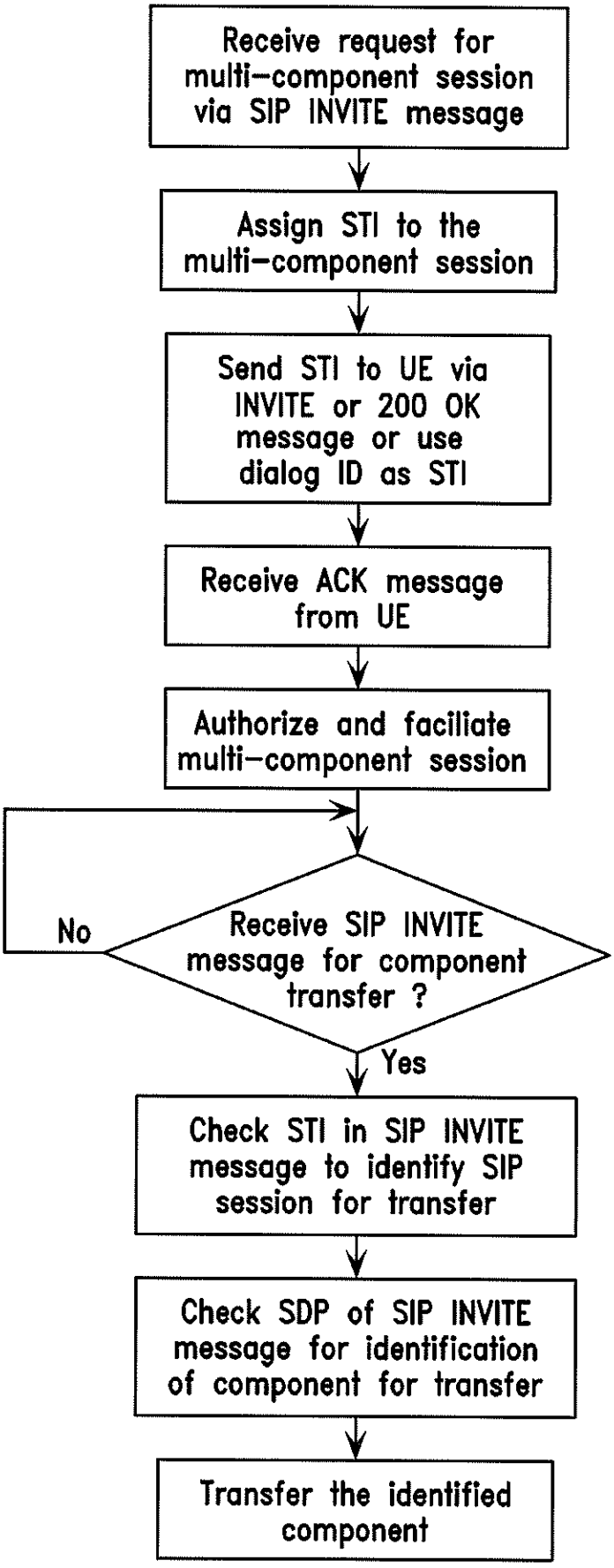

Receive request for multi-component session via SIP INVITE message
Assign STI to the multi-component session
Send STI to UE via INVITE or 200 OK message or use dialog ID as STI
Receive ACK message from UE
Authorize and faciliate multi-component session
Receive SIP INVITE message for component transfer ?
No
Yes
Check STI in SIP INVITE message to identify SIP session for transfer
Check SDP of SIP INVITE message for identification of component for transfer
Transfer the identified component

FIG. 12

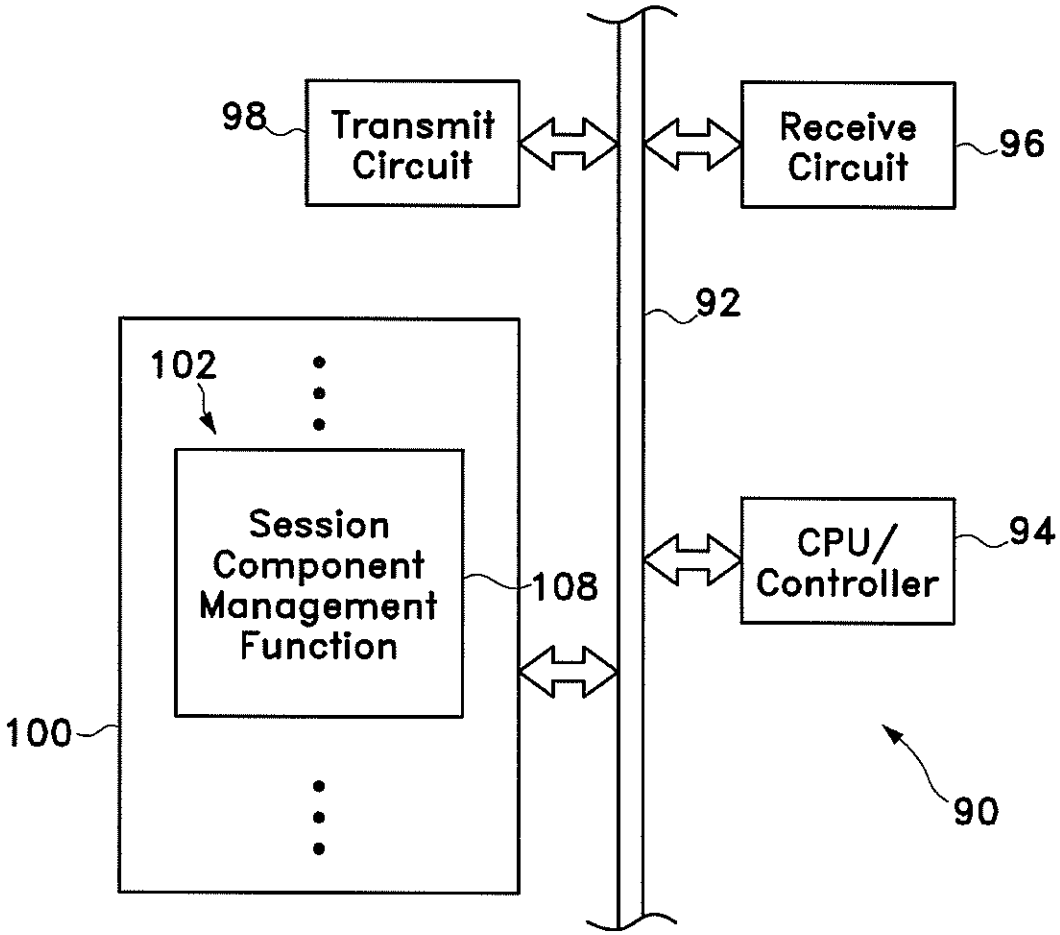

98
Transmit Circuit
Receive Circuit
96
92
102
Session Component Management Function
108
CPU/ Controller
94
100
90

FIG. 13