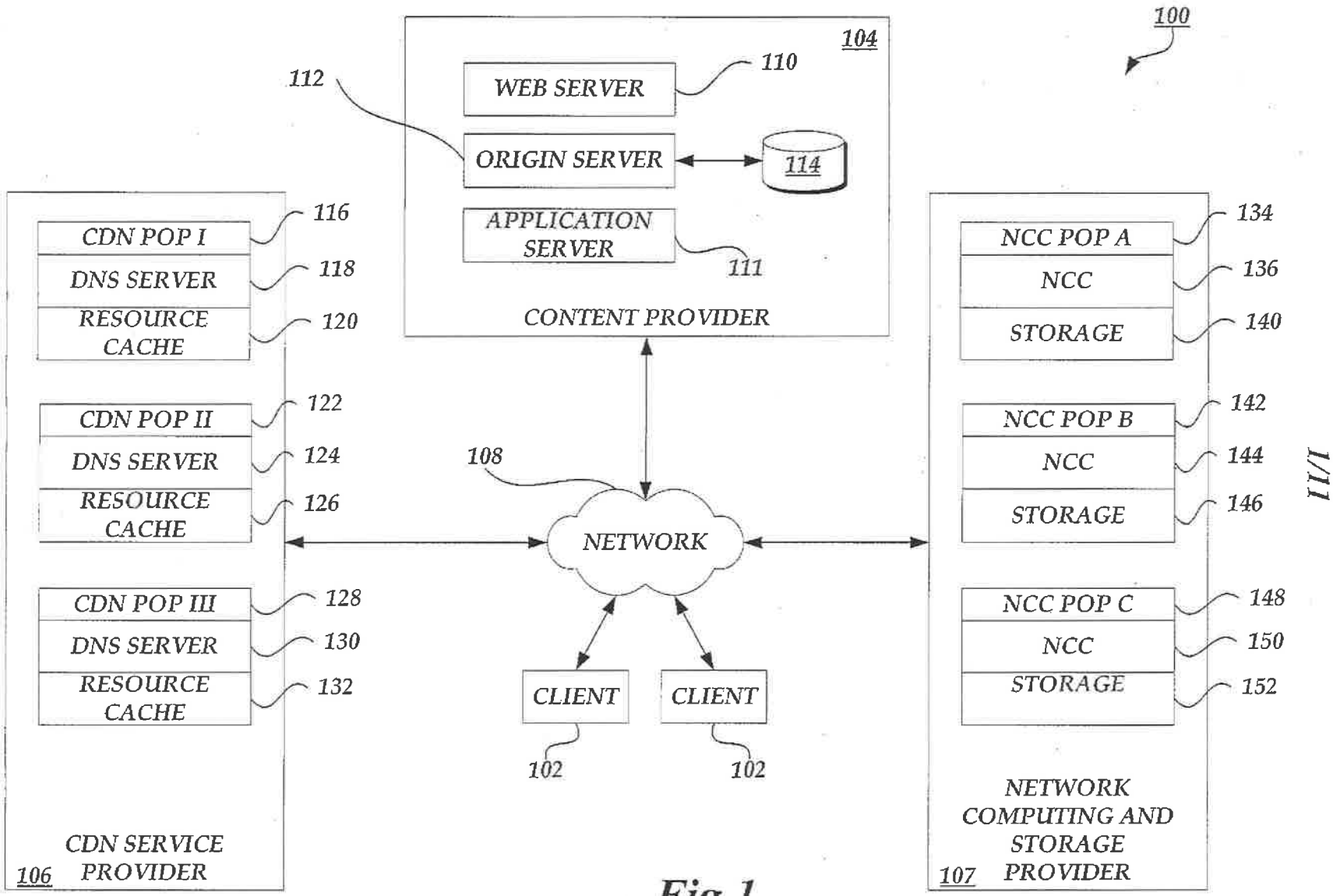
100
104
WEB SERVER
110
112
ORIGIN SERVER
114
APPLICATION SERVER
111
CONTENT PROVIDER
108
NETWORK
CLIENT
CLIENT
102
102
CDN POP I
116
DNS SERVER
118
RESOURCE CACHE
120
CDN POP II
122
DNS SERVER
124
RESOURCE CACHE
126
CDN POP III
128
DNS SERVER
130
RESOURCE CACHE
132
CDN SERVICE PROVIDER
106
NCC POP A
134
NCC
136
STORAGE
140
NCC POP B
142
NCC
144
STORAGE
146
NCC POP C
148
NCC
150
STORAGE
152
NETWORK COMPUTING AND STORAGE PROVIDER
107

Fig. 1.

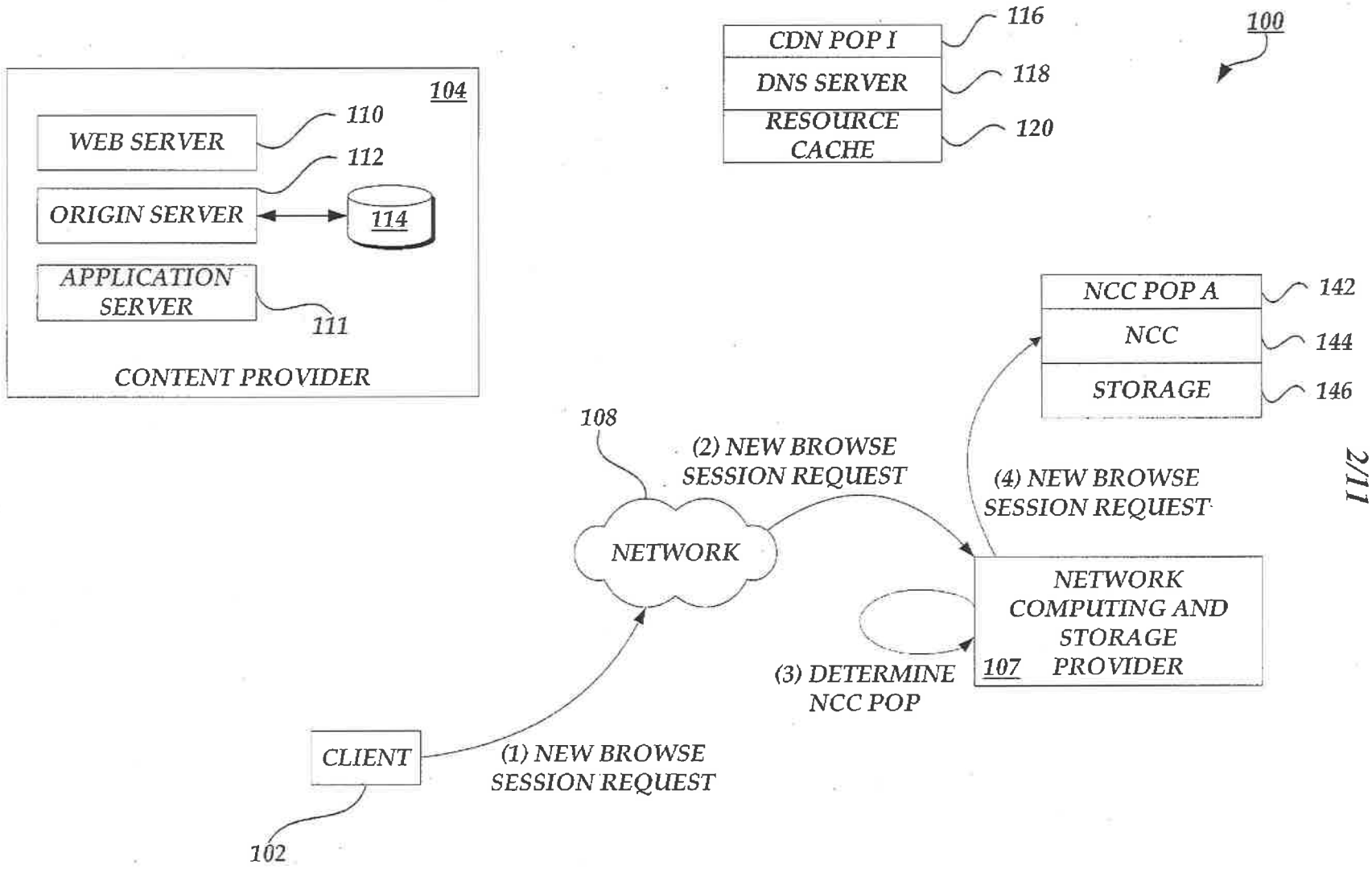
100
CDN POP I
116
DNS SERVER
118
RESOURCE CACHE
120
104
WEB SERVER
110
ORIGIN SERVER
112
114
APPLICATION SERVER
111
CONTENT PROVIDER
NCC POP A
142
NCC
144
STORAGE
146
108
(2) NEW BROWSE SESSION REQUEST
(4) NEW BROWSE SESSION REQUEST
NETWORK
NETWORK COMPUTING AND STORAGE PROVIDER
107
(3) DETERMINE NCC POP
CLIENT
102
(1) NEW BROWSE SESSION REQUEST

Fig.2.

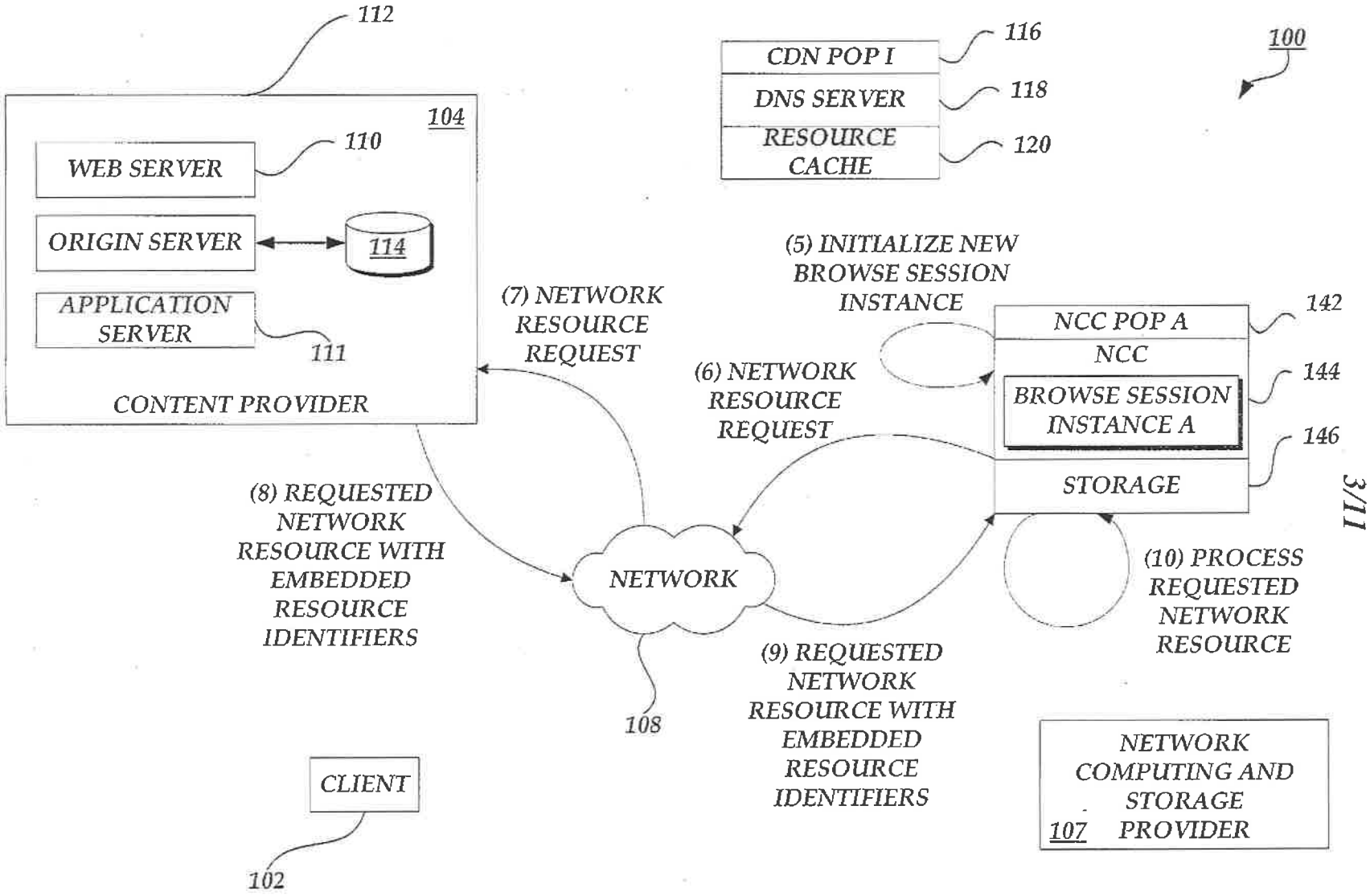
112
104
WEB SERVER
110
ORIGIN SERVER
114
APPLICATION SERVER
111
CONTENT PROVIDER
CDN POP I
116
DNS SERVER
118
RESOURCE CACHE
120
100
(5) INITIALIZE NEW BROWSE SESSION INSTANCE
NCC POP A
142
NCC
BROWSE SESSION INSTANCE A
144
STORAGE
146
(7) NETWORK RESOURCE REQUEST
(6) NETWORK RESOURCE REQUEST
(8) REQUESTED NETWORK RESOURCE WITH EMBEDDED RESOURCE IDENTIFIERS
NETWORK
108
(9) REQUESTED NETWORK RESOURCE WITH EMBEDDED RESOURCE IDENTIFIERS
(10) PROCESS REQUESTED NETWORK RESOURCE
CLIENT
102
NETWORK COMPUTING AND STORAGE PROVIDER
107

Fig.3.

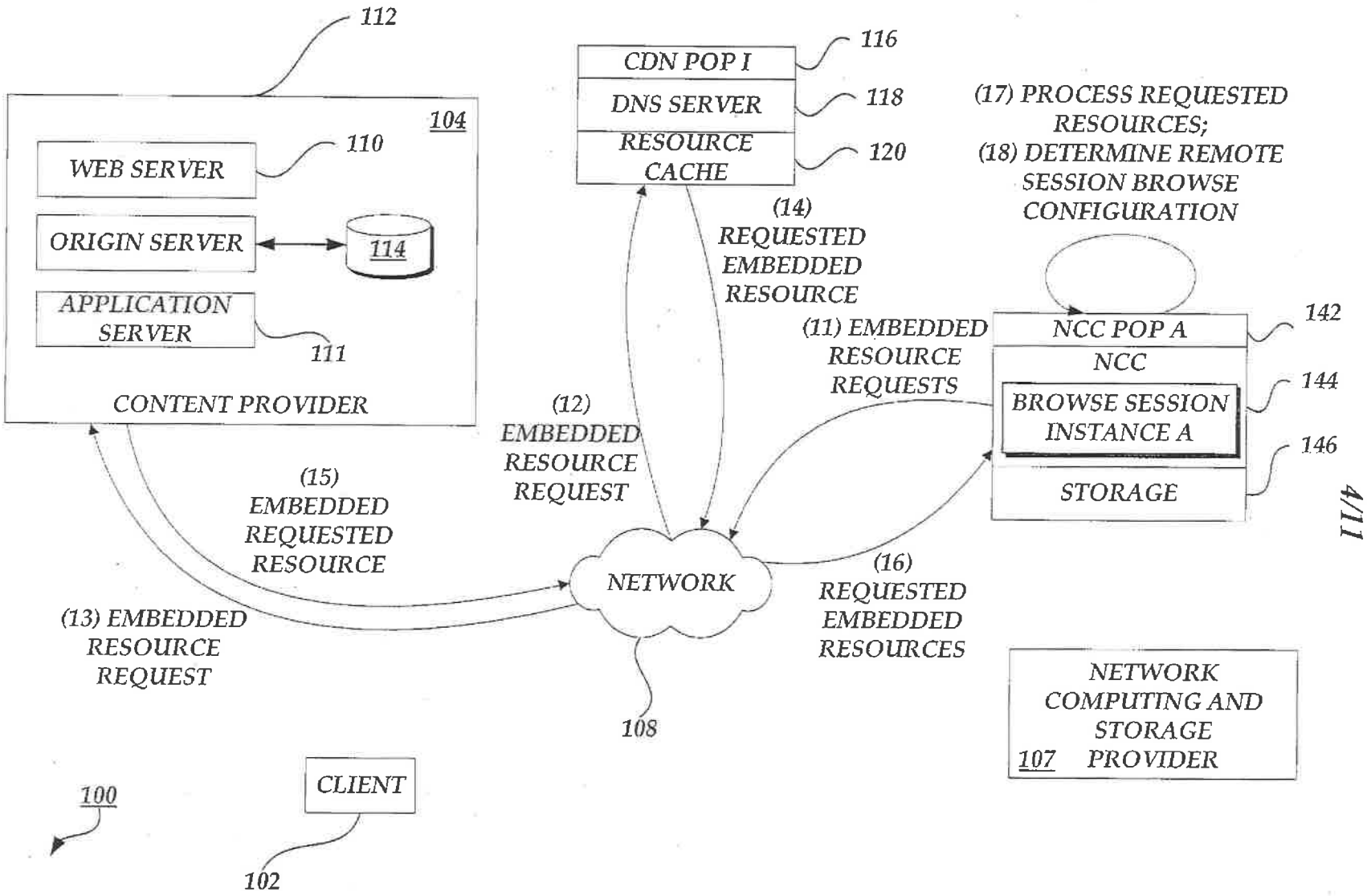
112
104
WEB SERVER
110
ORIGIN SERVER
114
APPLICATION SERVER
111
CONTENT PROVIDER
CDN POP I
116
DNS SERVER
118
RESOURCE CACHE
120
(14) REQUESTED EMBEDDED RESOURCE
(17) PROCESS REQUESTED RESOURCES;
(18) DETERMINE REMOTE SESSION BROWSE CONFIGURATION
(11) EMBEDDED RESOURCE REQUESTS
NCC POP A
142
NCC
BROWSE SESSION INSTANCE A
144
STORAGE
146
(12) EMBEDDED RESOURCE REQUEST
(15) EMBEDDED REQUESTED RESOURCE
(13) EMBEDDED RESOURCE REQUEST
NETWORK
(16) REQUESTED EMBEDDED RESOURCES
108
NETWORK COMPUTING AND STORAGE PROVIDER
107
100
CLIENT
102
4/11

Fig. 4.

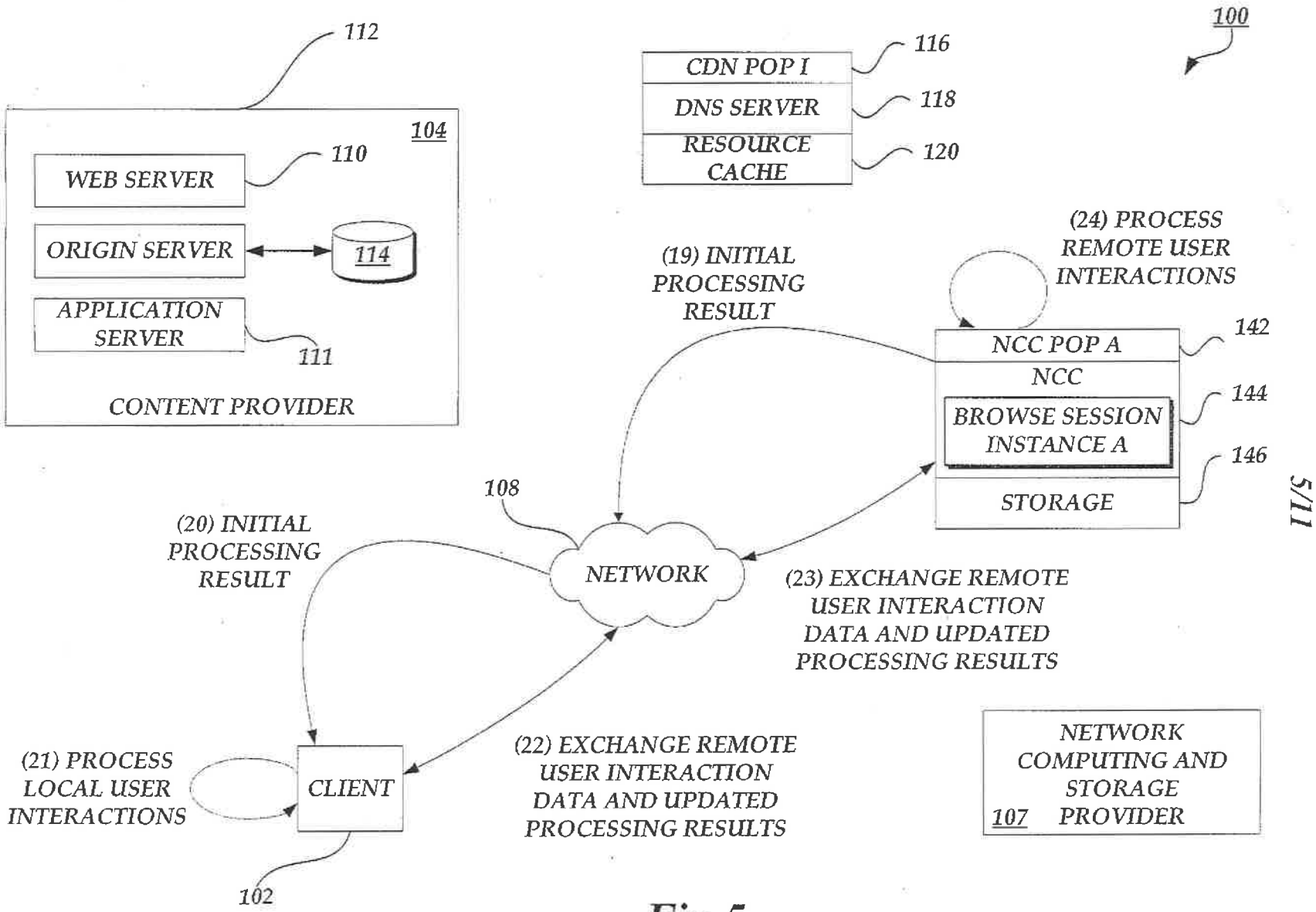
100
112
104
WEB SERVER
110
ORIGIN SERVER
114
APPLICATION SERVER
111
CONTENT PROVIDER
CDN POP I
116
DNS SERVER
118
RESOURCE CACHE
120
(19) INITIAL PROCESSING RESULT
(24) PROCESS REMOTE USER INTERACTIONS
NCC POP A
142
NCC
BROWSE SESSION INSTANCE A
144
STORAGE
146
108
NETWORK
(20) INITIAL PROCESSING RESULT
(23) EXCHANGE REMOTE USER INTERACTION DATA AND UPDATED PROCESSING RESULTS
(21) PROCESS LOCAL USER INTERACTIONS
CLIENT
102
(22) EXCHANGE REMOTE USER INTERACTION DATA AND UPDATED PROCESSING RESULTS
NETWORK COMPUTING AND STORAGE PROVIDER
107

Fig. 5.

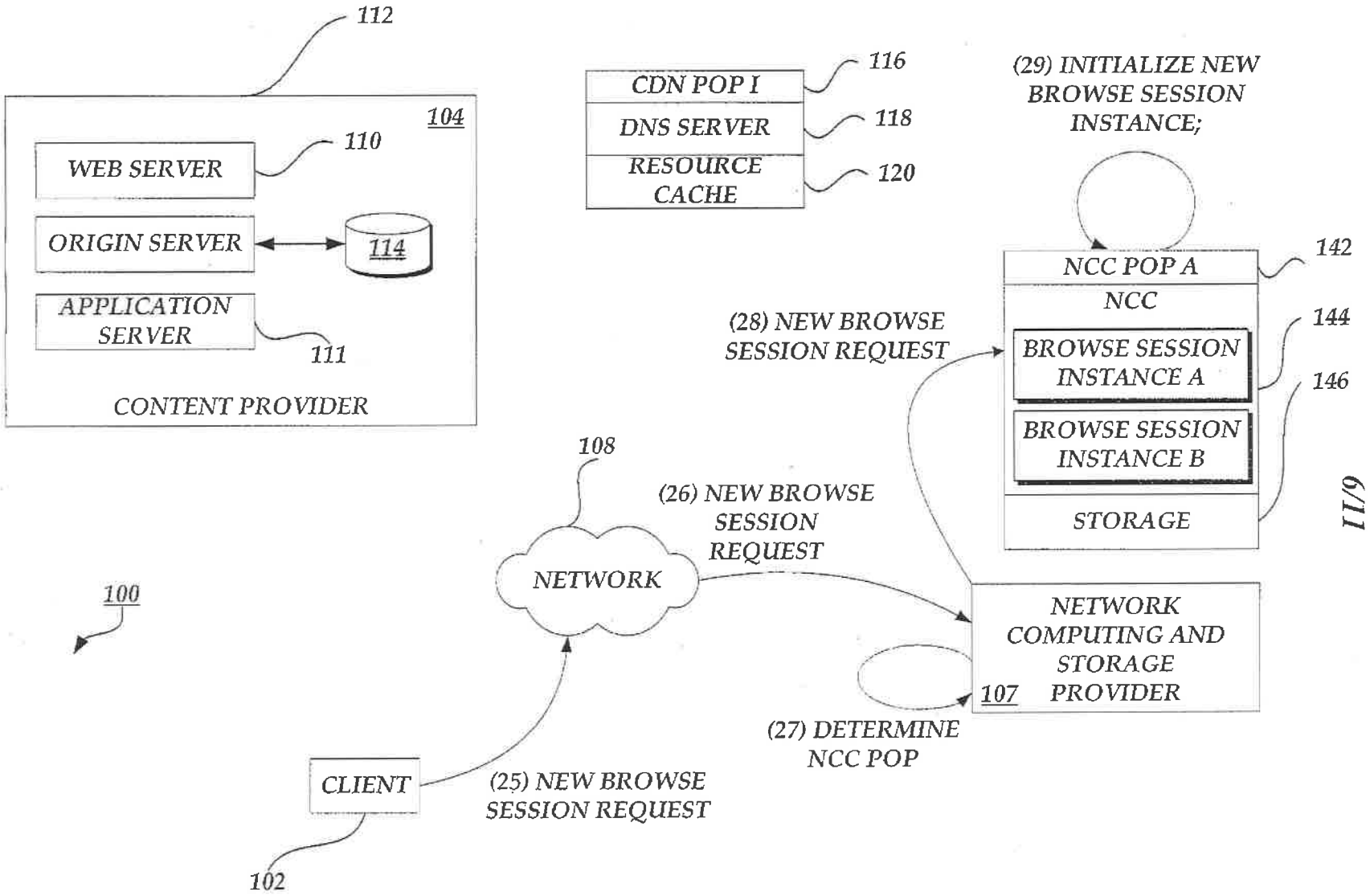
112
104
WEB SERVER
110
ORIGIN SERVER
114
APPLICATION SERVER
111
CONTENT PROVIDER
CDN POP I
116
DNS SERVER
118
RESOURCE CACHE
120
(29) INITIALIZE NEW BROWSE SESSION INSTANCE;
NCC POP A
142
NCC
(28) NEW BROWSE SESSION REQUEST
BROWSE SESSION INSTANCE A
144
BROWSE SESSION INSTANCE B
146
STORAGE
108
(26) NEW BROWSE SESSION REQUEST
NETWORK
100
NETWORK COMPUTING AND STORAGE PROVIDER
107
(27) DETERMINE NCC POP
CLIENT
(25) NEW BROWSE SESSION REQUEST
102
11/9

Fig. 6.

XYZWebsite.com
FILE EDIT VIEW FAVORITES TOOLS HELP
BACK FORWARD STOP REFRESH HOME SEARCH FAVORITES HISTORY MAIL SIZE PRINT
LINKS ADDRESS HTTP://WWW.XYZWEBSITE.COM GO
Welcome to XYZWebsite
Welcome to XYZWebsite! A website full of many different things to do and products to browse. You know you are having fun when you are at XYZWebsite.
Search Website:
Search
Links: Home Entertainment Shopping Games
700
702

Fig. 7.

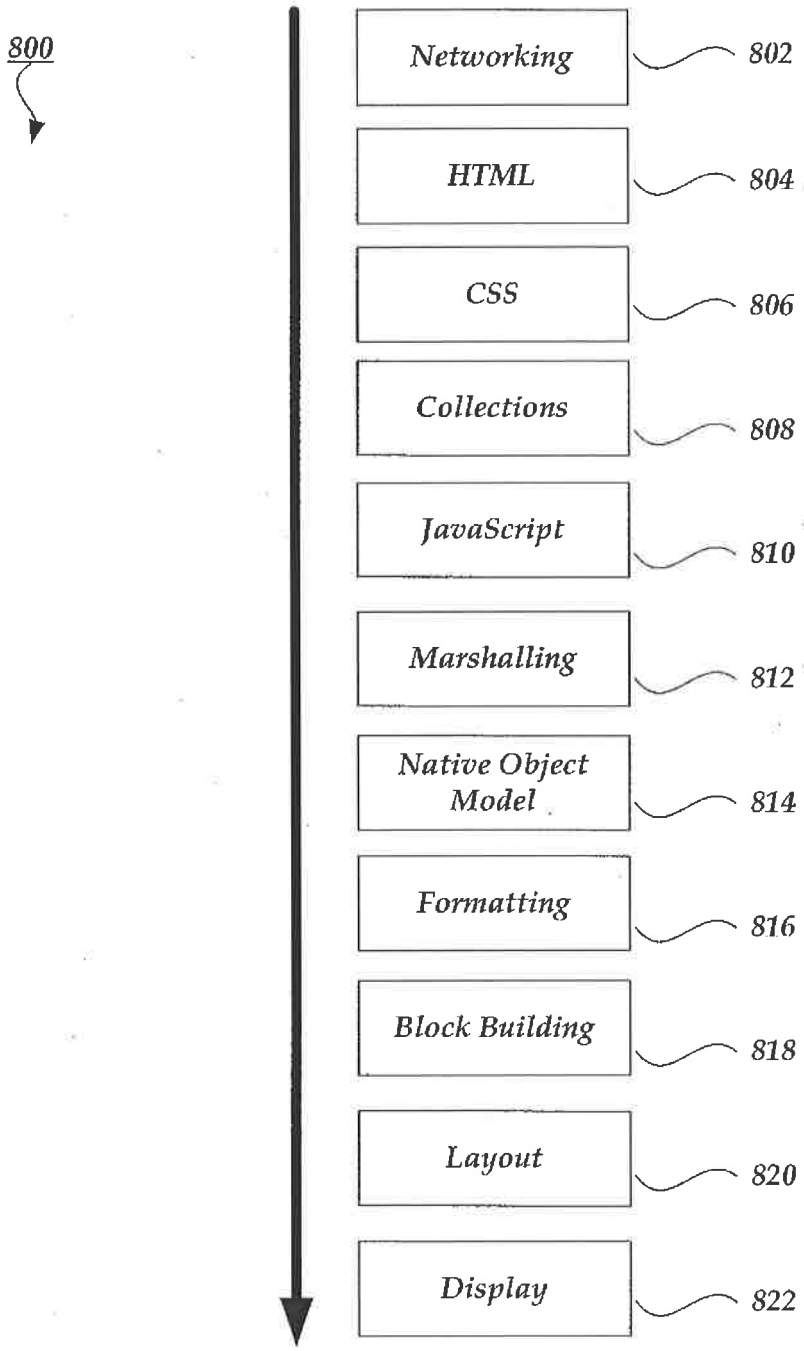
800
Networking
802
HTML
804
CSS
806
Collections
808
JavaScript
810
Marshalling
812
Native Object Model
814
Formatting
816
Block Building
818
Layout
820
Display
822

Fig.8.

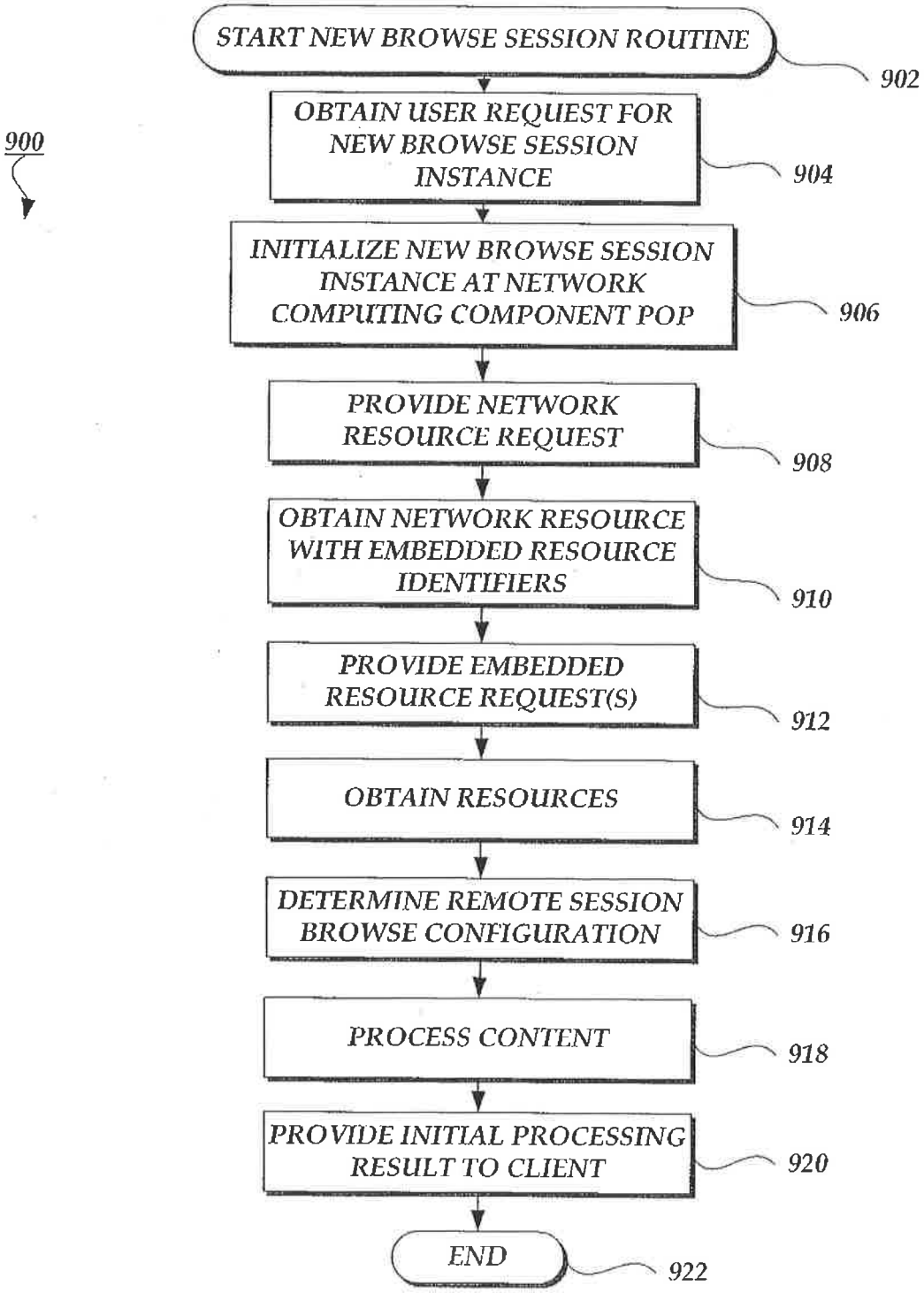
900
START NEW BROWSE SESSION ROUTINE
902
OBTAIN USER REQUEST FOR NEW BROWSE SESSION INSTANCE
904
INITIALIZE NEW BROWSE SESSION INSTANCE AT NETWORK COMPUTING COMPONENT POP
906
PROVIDE NETWORK RESOURCE REQUEST
908
OBTAIN NETWORK RESOURCE WITH EMBEDDED RESOURCE IDENTIFIERS
910
PROVIDE EMBEDDED RESOURCE REQUEST(S)
912
OBTAIN RESOURCES
914
DETERMINE REMOTE SESSION BROWSE CONFIGURATION
916
PROCESS CONTENT
918
PROVIDE INITIAL PROCESSING RESULT TO CLIENT
920
END
922

Fig. 9.

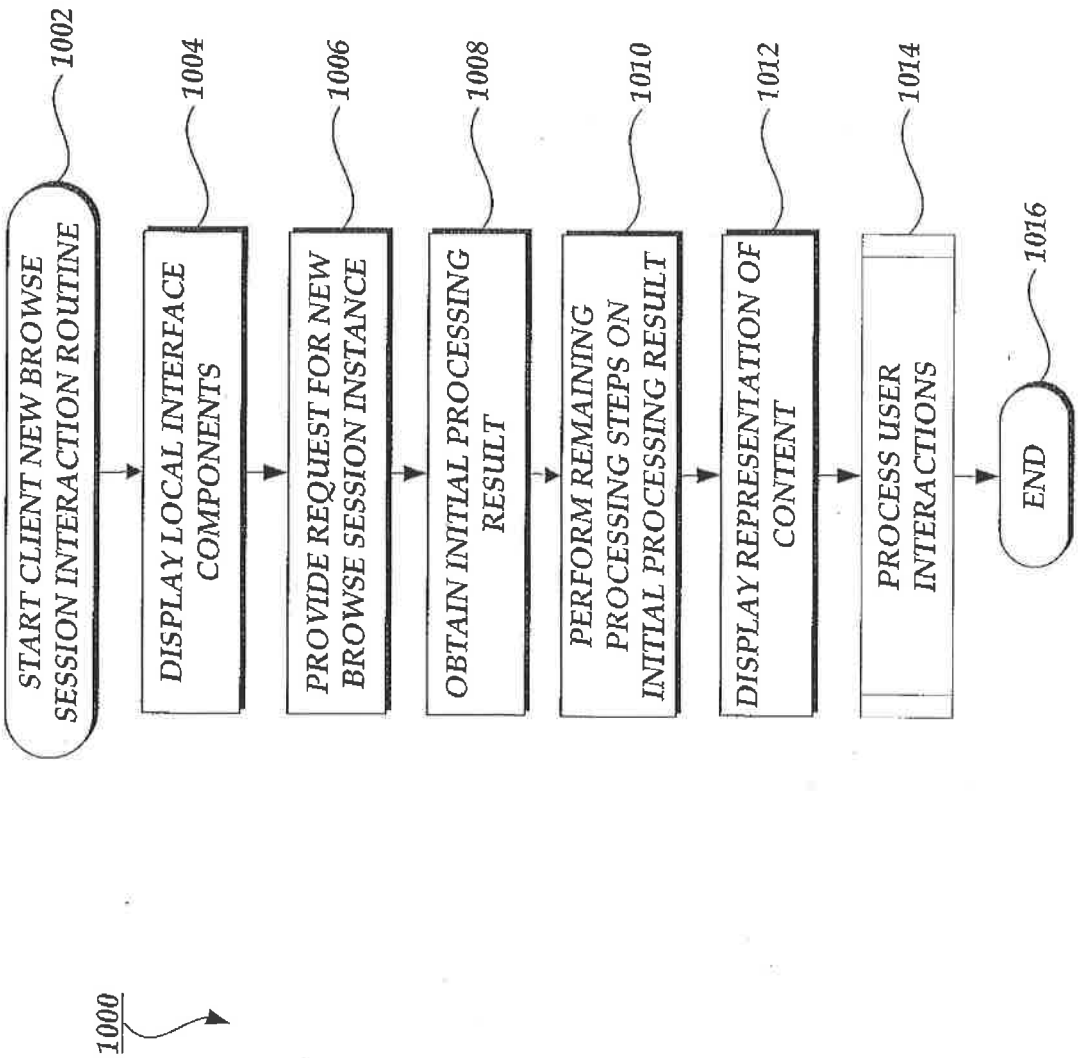
1000
START CLIENT NEW BROWSE SESSION INTERACTION ROUTINE
1002
DISPLAY LOCAL INTERFACE COMPONENTS
1004
PROVIDE REQUEST FOR NEW BROWSE SESSION INSTANCE
1006
OBTAIN INITIAL PROCESSING RESULT
1008
PERFORM REMAINING PROCESSING STEPS ON INITIAL PROCESSING RESULT
1010
DISPLAY REPRESENTATION OF CONTENT
1012
PROCESS USER INTERACTIONS
1014
END
1016

Fig.10.

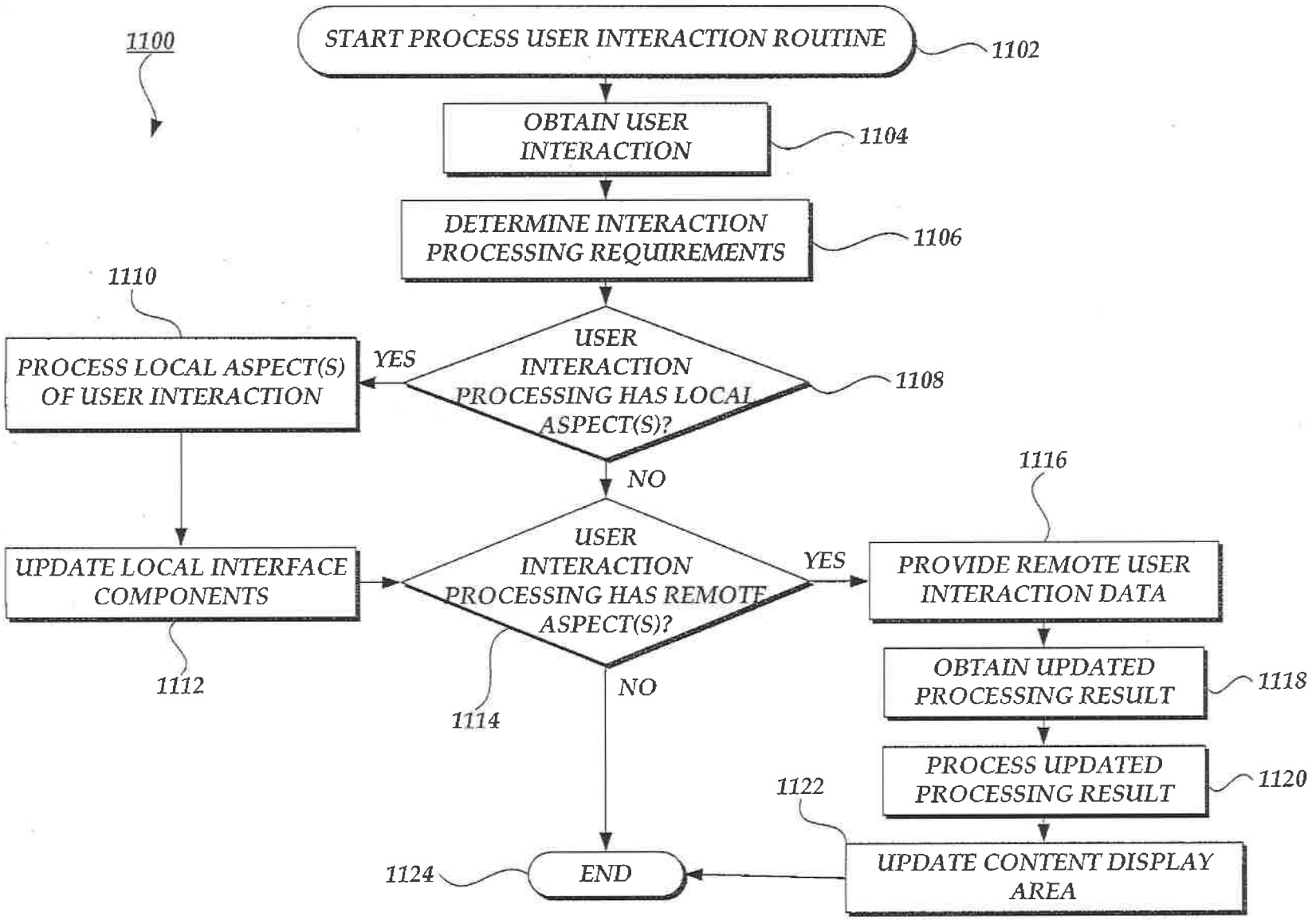
1100
START PROCESS USER INTERACTION ROUTINE
1102
OBTAIN USER INTERACTION
1104
DETERMINE INTERACTION PROCESSING REQUIREMENTS
1106
1110
PROCESS LOCAL ASPECT(S) OF USER INTERACTION
YES
USER INTERACTION PROCESSING HAS LOCAL ASPECT(S)?
1108
NO
1116
UPDATE LOCAL INTERFACE COMPONENTS
USER INTERACTION PROCESSING HAS REMOTE ASPECT(S)?
YES
PROVIDE REMOTE USER INTERACTION DATA
1112
1114
NO
OBTAIN UPDATED PROCESSING RESULT
1118
PROCESS UPDATED PROCESSING RESULT
1120
1122
1124
END
UPDATE CONTENT DISPLAY AREA

Fig.11.