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Martin

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(54) **ELECTRONIC MESSAGE RESPONSE AND REMEDIATION SYSTEM AND METHOD**

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G06F 15/16 (2006.01)

(52) **U.S. Cl.** **709/206**; 709/200; 709/223

(58) **Field of Classification Search** 709/206, 709/224

See application file for complete search history.

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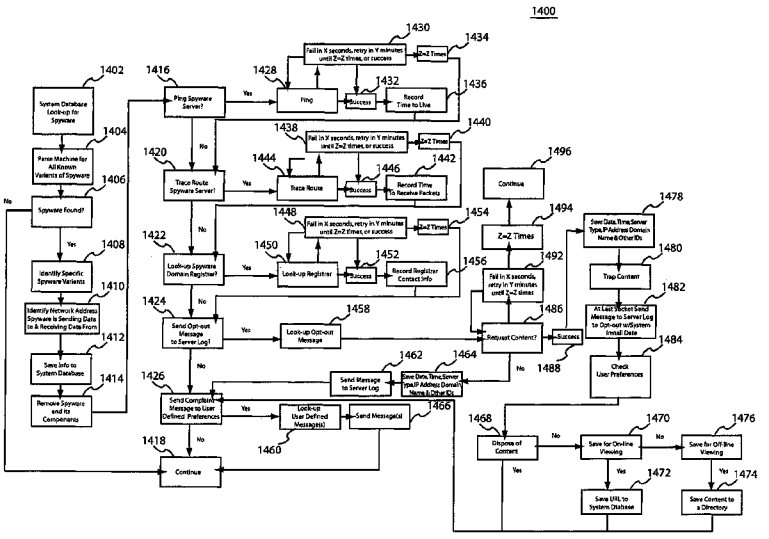
(57) **ABSTRACT**

Provided is a method, system and software for responding to an incoming electronic message, including determining whether the incoming electronic message is relevant or irrelevant to a user, and if the incoming electronic message is irrelevant to the user, parsing the incoming electronic message for message origination information and replying to the message using the message origination information.

42 Claims, 55 Drawing Sheets



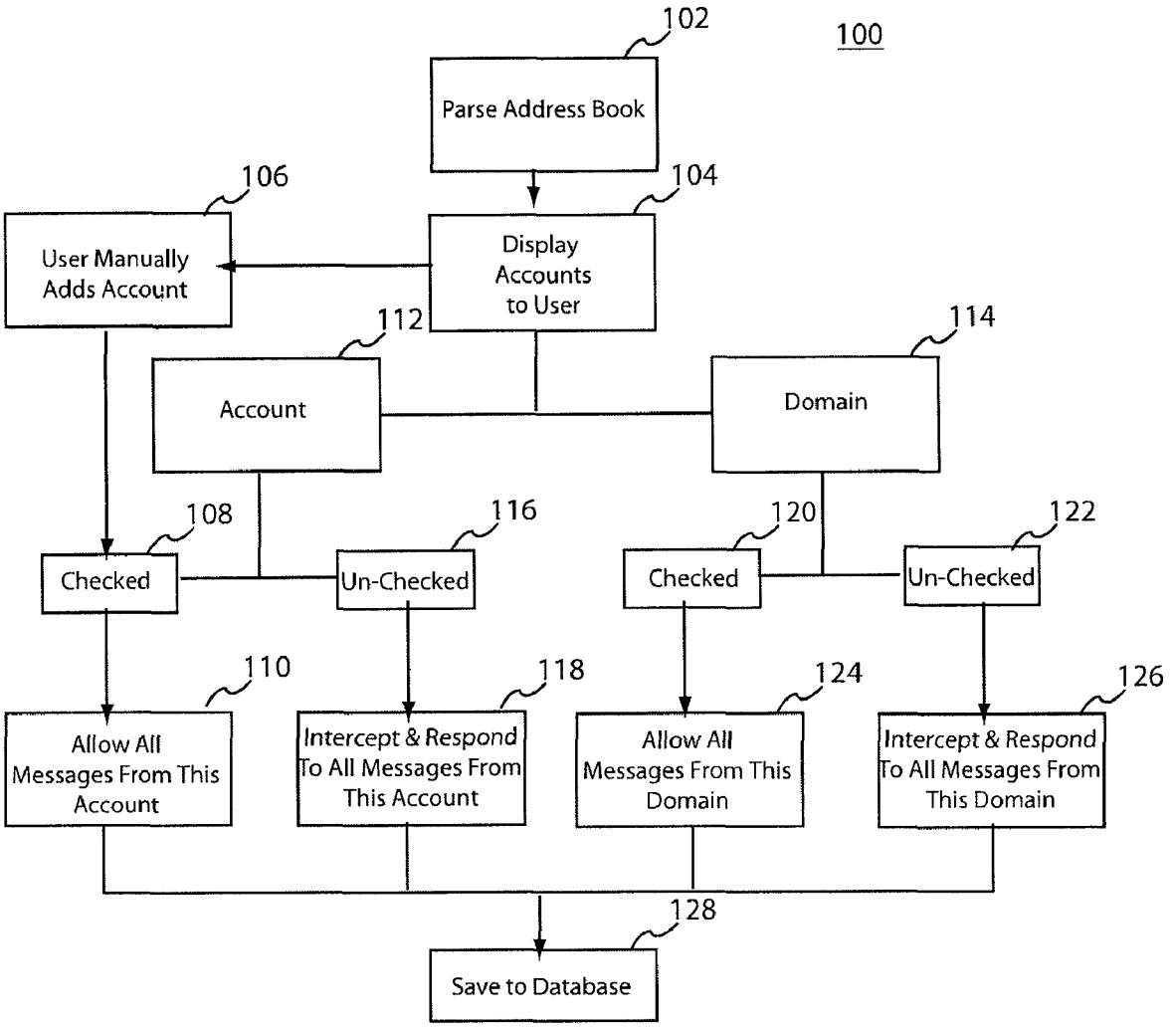

100
102
Parse Address Book
104
Display Accounts to User
106
User Manually Adds Account
112
Account
114
Domain
108
Checked
116
Un-Checked
120
Checked
122
Un-Checked
110
Allow All Messages From This Account
118
Intercept & Respond To All Messages From This Account
124
Allow All Messages From This Domain
126
Intercept & Respond To All Messages From This Domain
128
Save to Database

Figure 1

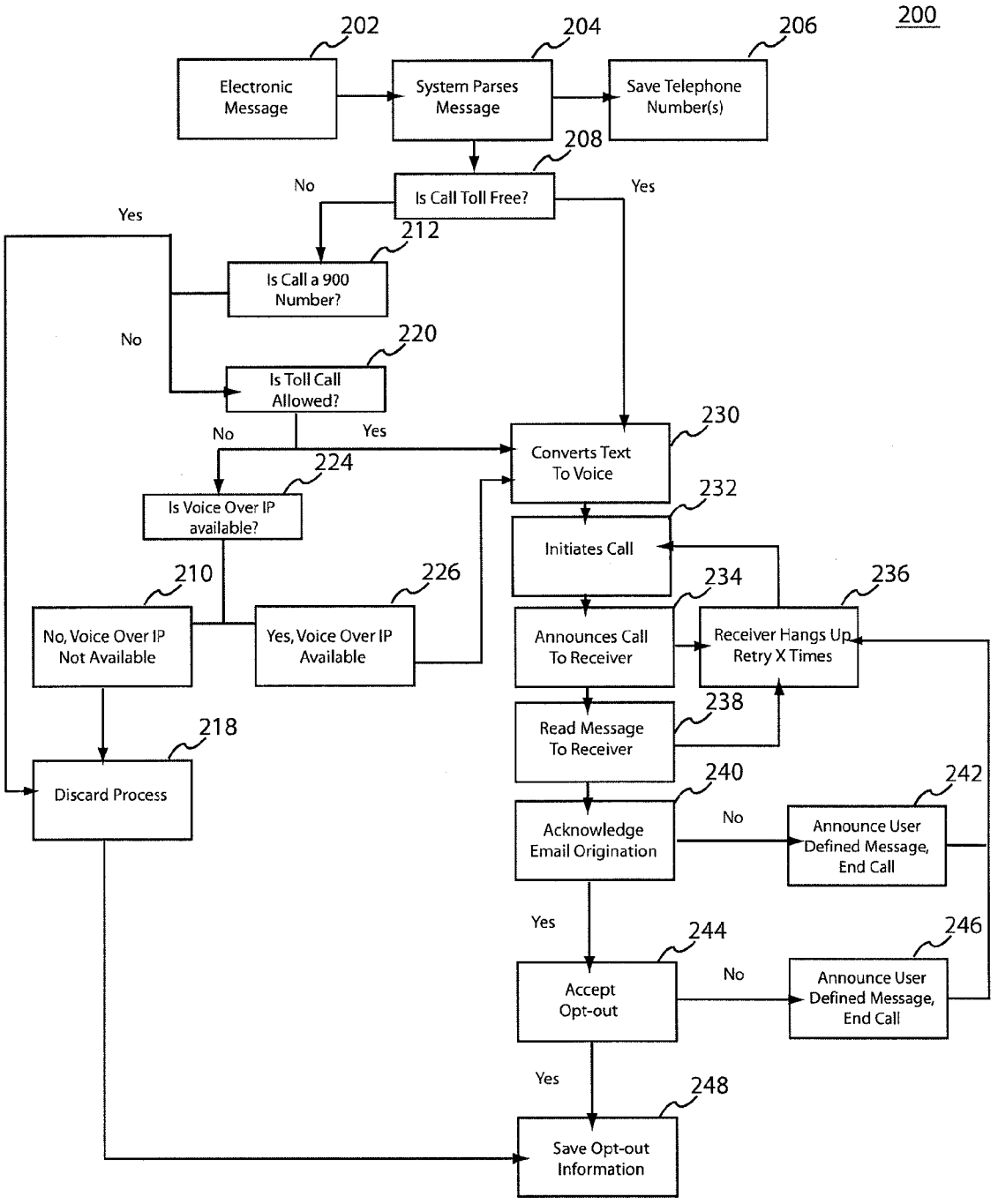

200
202
Electronic Message
204
System Parses Message
206
Save Telephone Number(s)
208
Is Call Toll Free?
No
Yes
212
Is Call a 900 Number?
Yes
No
220
Is Toll Call Allowed?
No
Yes
224
Is Voice Over IP available?
210
No, Voice Over IP Not Available
226
Yes, Voice Over IP Available
218
Discard Process
230
Converts Text To Voice
232
Initiates Call
234
Announces Call To Receiver
236
Receiver Hangs Up Retry X Times
238
Read Message To Receiver
240
Acknowledge Email Origination
No
242
Announce User Defined Message, End Call
Yes
244
Accept Opt-out
No
246
Announce User Defined Message, End Call
Yes
248
Save Opt-out Information

Figure 2

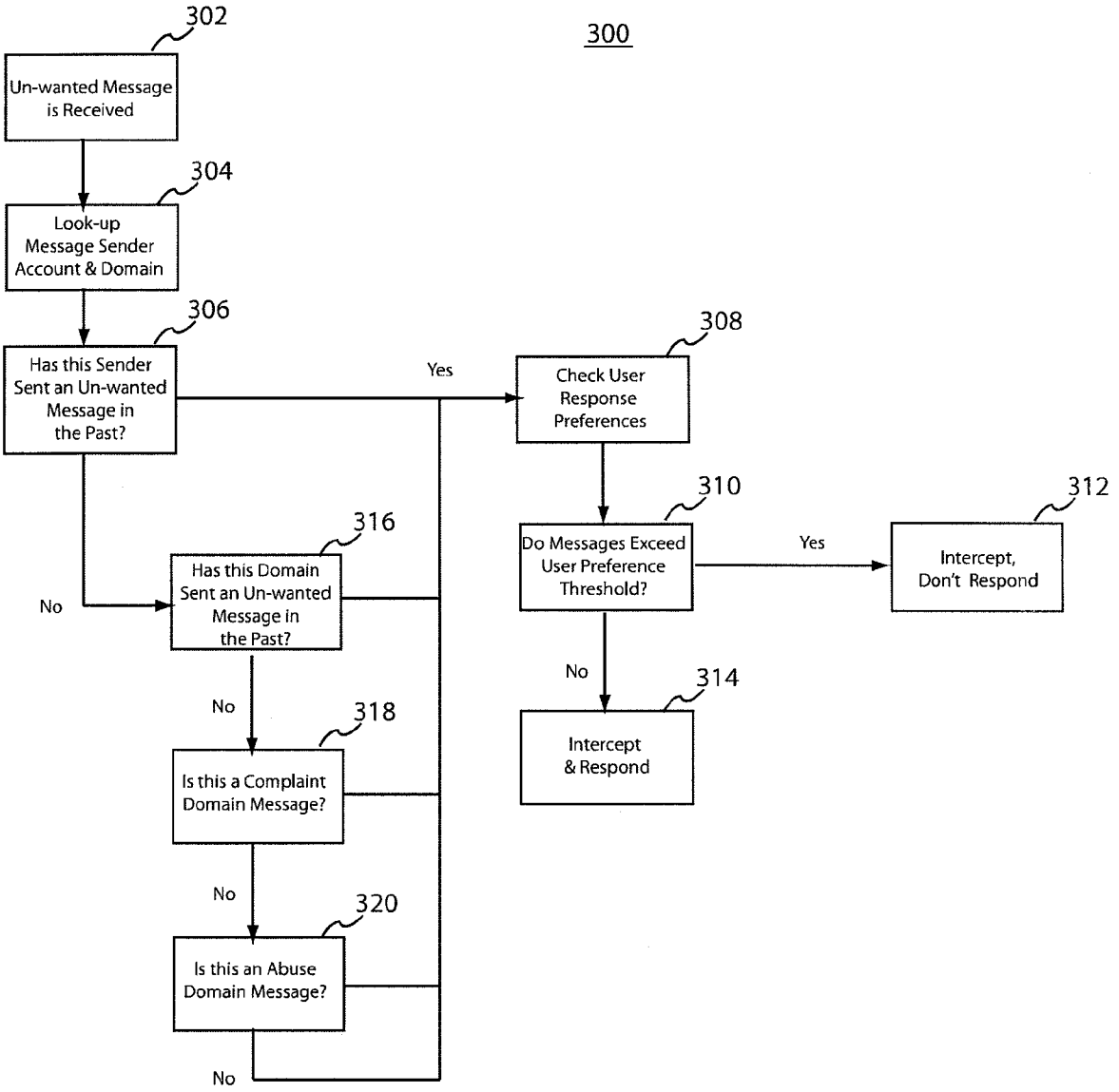

300
302
Un-wanted Message is Received
304
Look-up Message Sender Account & Domain
306
Has this Sender Sent an Un-wanted Message in the Past?
Yes
308
Check User Response Preferences
310
Do Messages Exceed User Preference Threshold?
Yes
312
Intercept, Don't Respond
No
314
Intercept & Respond
No
316
Has this Domain Sent an Un-wanted Message in the Past?
No
318
Is this a Complaint Domain Message?
No
320
Is this an Abuse Domain Message?
No

Figure 3

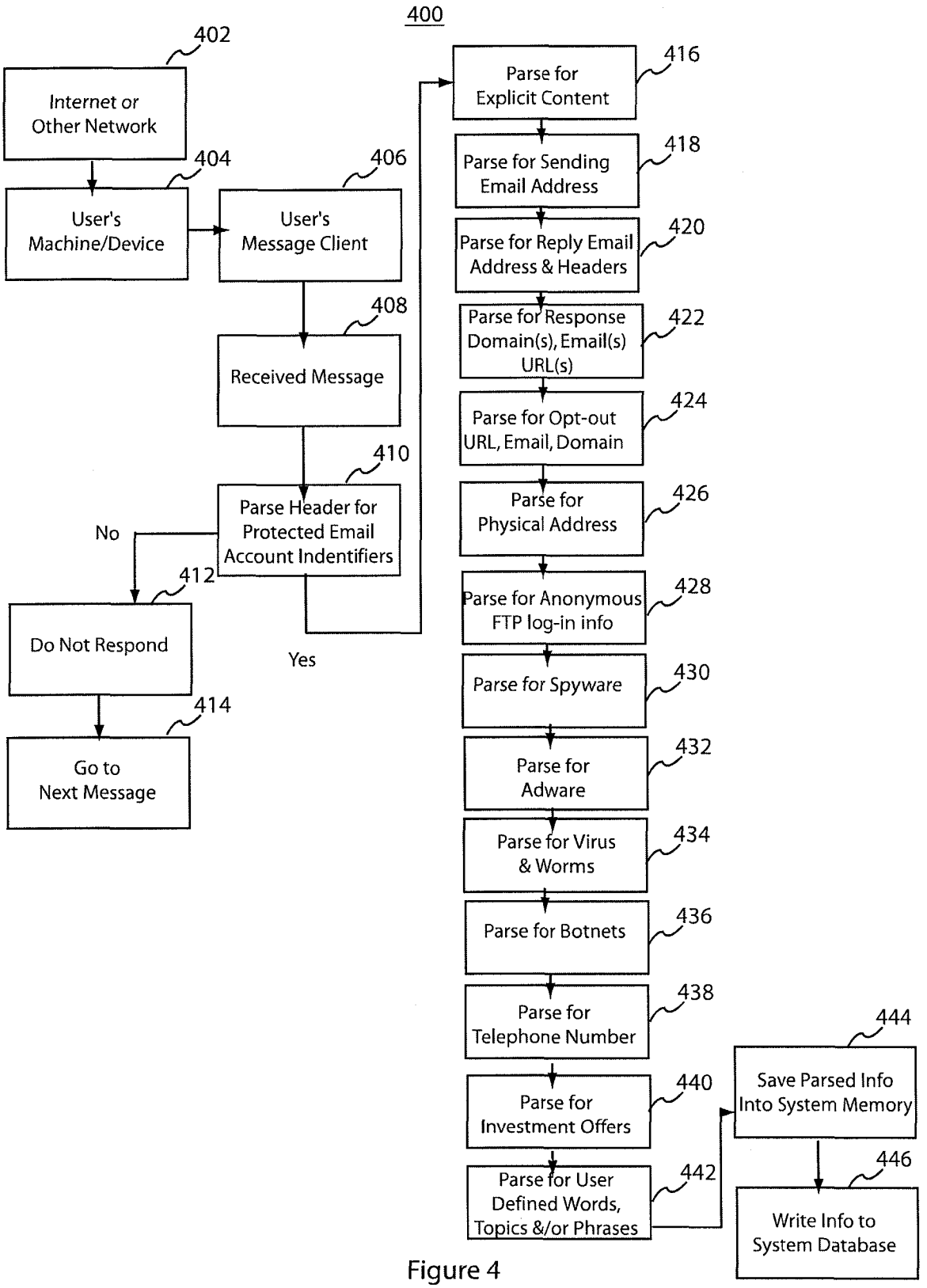

400
402
Internet or Other Network
404
User's Machine/Device
406
User's Message Client
408
Received Message
410
Parse Header for Protected Email Account Indentifiers
No
412
Do Not Respond
414
Go to Next Message
Yes
416
Parse for Explicit Content
418
Parse for Sending Email Address
420
Parse for Reply Email Address & Headers
422
Parse for Response Domain(s), Email(s) URL(s)
424
Parse for Opt-out URL, Email, Domain
426
Parse for Physical Address
428
Parse for Anonymous FTP log-in info
430
Parse for Spyware
432
Parse for Adware
434
Parse for Virus & Worms
436
Parse for Botnets
438
Parse for Telephone Number
440
Parse for Investment Offers
442
Parse for User Defined Words, Topics &/or Phrases
444
Save Parsed Info Into System Memory
446
Write Info to System Database

Figure 4

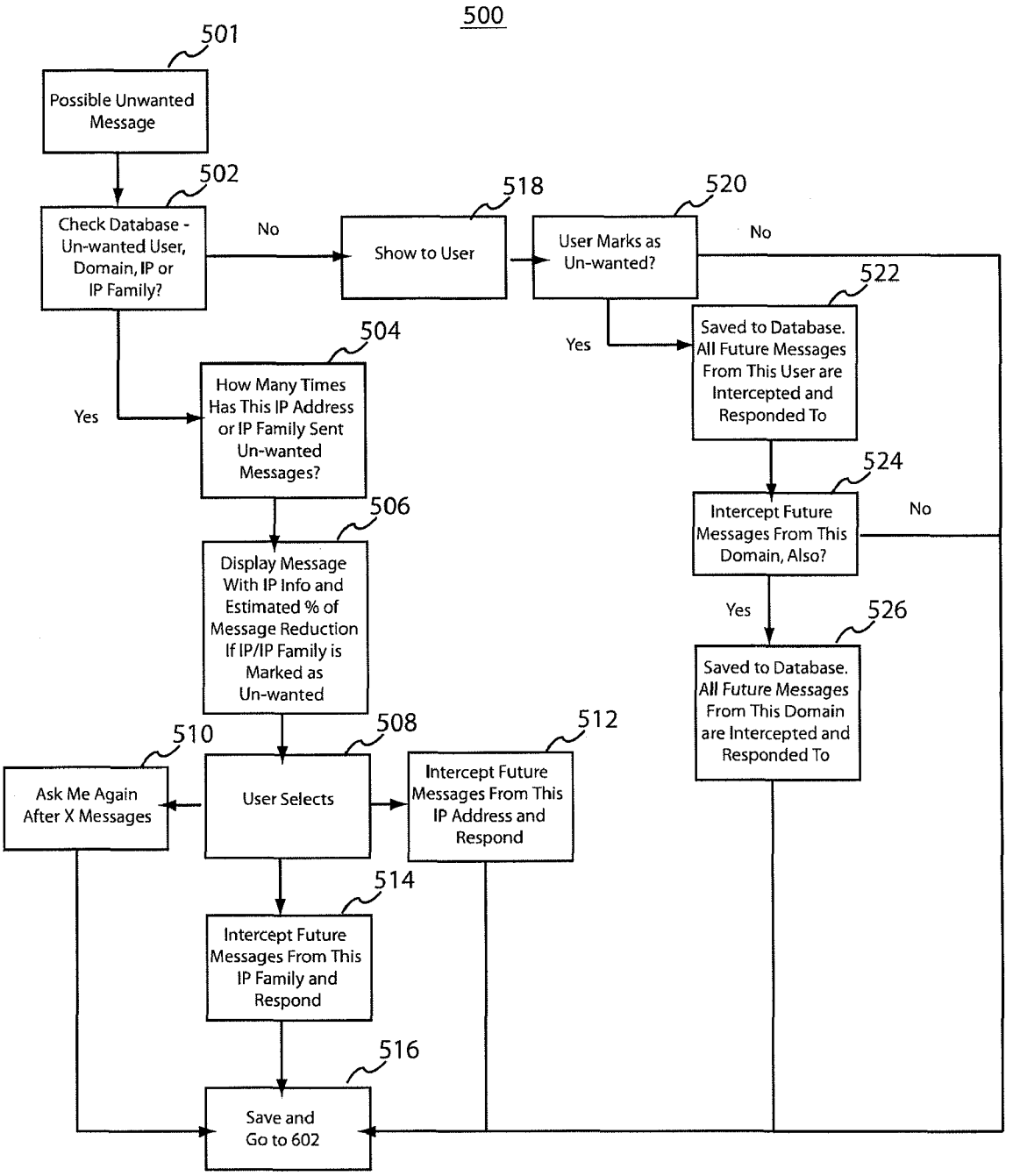

500
501
Possible Unwanted Message
502
Check Database - Un-wanted User, Domain, IP or IP Family?
No
518
Show to User
520
User Marks as Un-wanted?
No
522
Yes
Saved to Database. All Future Messages From This User are Intercepted and Responded To
Yes
504
How Many Times Has This IP Address or IP Family Sent Un-wanted Messages?
524
Intercept Future Messages From This Domain, Also?
No
506
Display Message With IP Info and Estimated % of Message Reduction If IP/IP Family is Marked as Un-wanted
Yes
526
Saved to Database. All Future Messages From This Domain are Intercepted and Responded To
510
508
512
Ask Me Again After X Messages
User Selects
Intercept Future Messages From This IP Address and Respond
514
Intercept Future Messages From This IP Family and Respond
516
Save and Go to 602

Figure 5

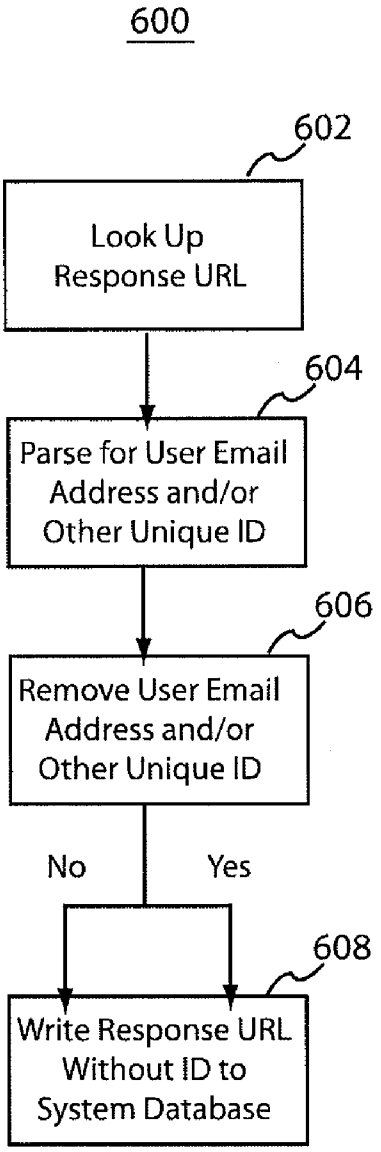

600
602
Look Up Response URL
604
Parse for User Email Address and/or Other Unique ID
606
Remove User Email Address and/or Other Unique ID
No
Yes
608
Write Response URL Without ID to System Database

Figure 6

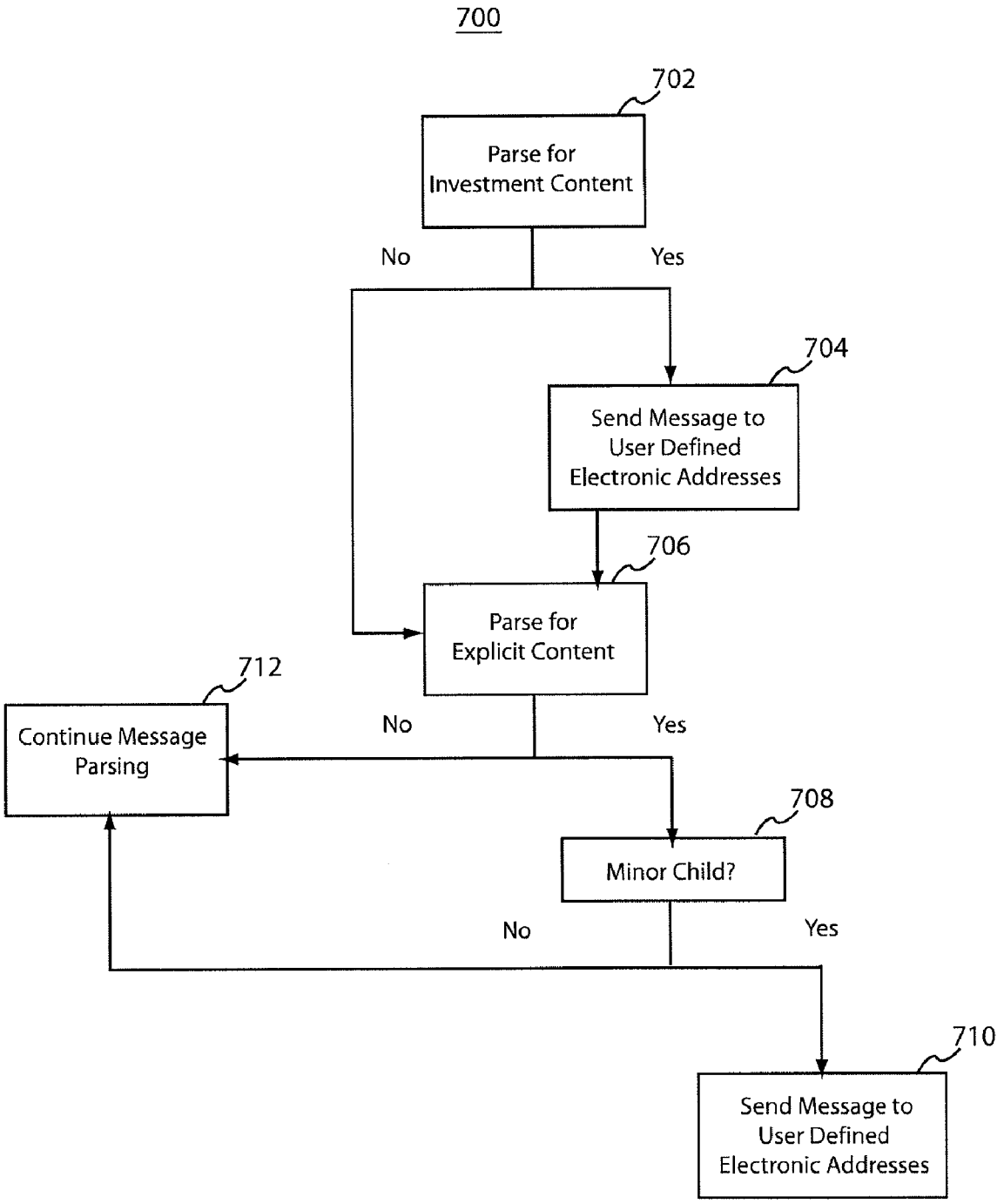

700
702
Parse for Investment Content
No
Yes
704
Send Message to User Defined Electronic Addresses
706
Parse for Explicit Content
712
Continue Message Parsing
No
Yes
708
Minor Child?
No
Yes
710
Send Message to User Defined Electronic Addresses

Figure 7

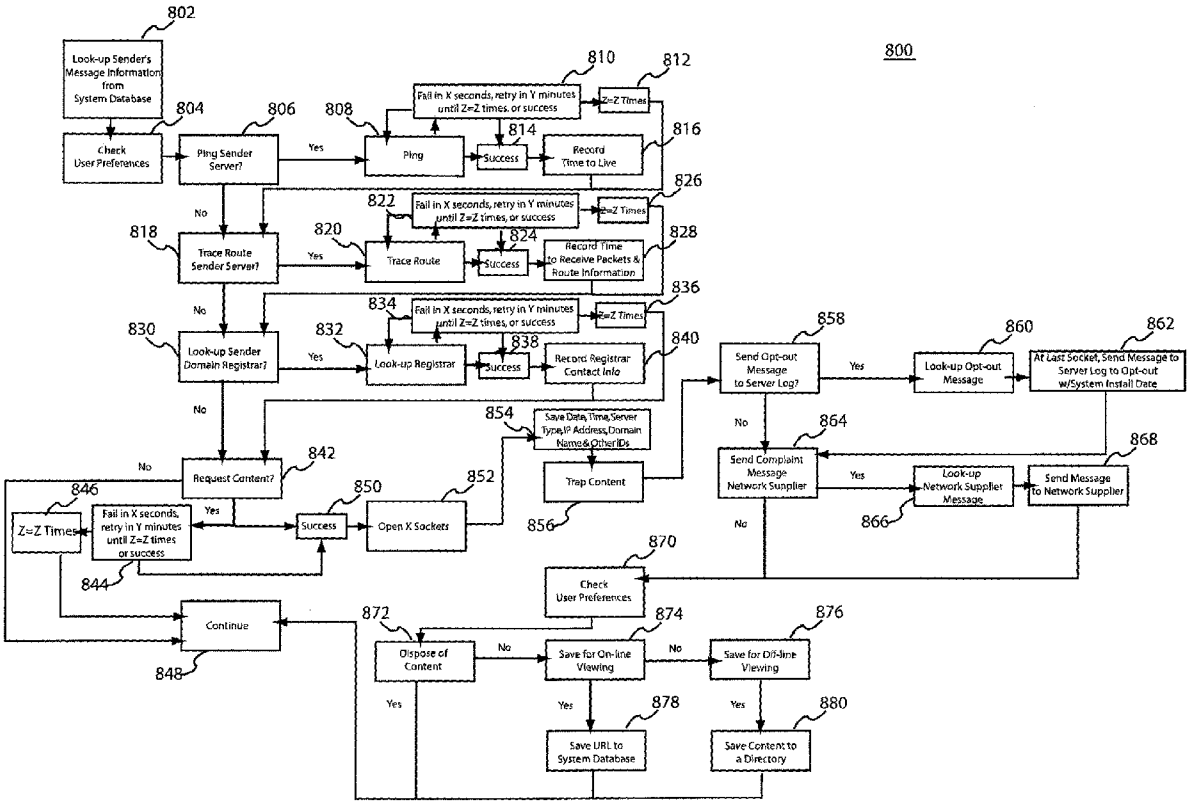

800
802
Look-up Sender's Message Information from System Database
804
Check User Preferences
806
Ping Sender Server?
Yes
No
808
Ping
810
Fail in X seconds, retry in Y minutes until Z=Z times, or success
812
Z=Z Times
814
Success
816
Record Time to Live
818
Trace Route Sender Server?
820
Trace Route
822
Fail in X seconds, retry in Y minutes until Z=Z times, or success
824
Success
826
Z=Z Times
828
Record Time to Receive Packets & Route Information
830
Look-up Sender Domain Registrar?
832
Look-up Registrar
834
Fail in X seconds, retry in Y minutes until Z=Z times, or success
836
Z=Z Times
838
Success
840
Record Registrar Contact Info
842
Request Content?
844
Fail in X seconds, retry in Y minutes until Z=Z times or success
846
Z=Z Times
848
Continue
850
Success
852
Open X Sockets
854
Save Date, Time, Server Type, IP Address, Domain Name & Other IDs
856
Trap Content
858
Send Opt-out Message to Server Log?
860
Look-up Opt-out Message
862
At Last Socket, Send Message to Server Log to Opt-out w/System Install Date
864
Send Complaint Message Network Supplier
866
Look-up Network Supplier Message
868
Send Message to Network Supplier
870
Check User Preferences
872
Dispose of Content
874
Save for On-line Viewing
876
Save for Off-line Viewing
878
Save URL to System Database
880
Save Content to a Directory

Figure 8

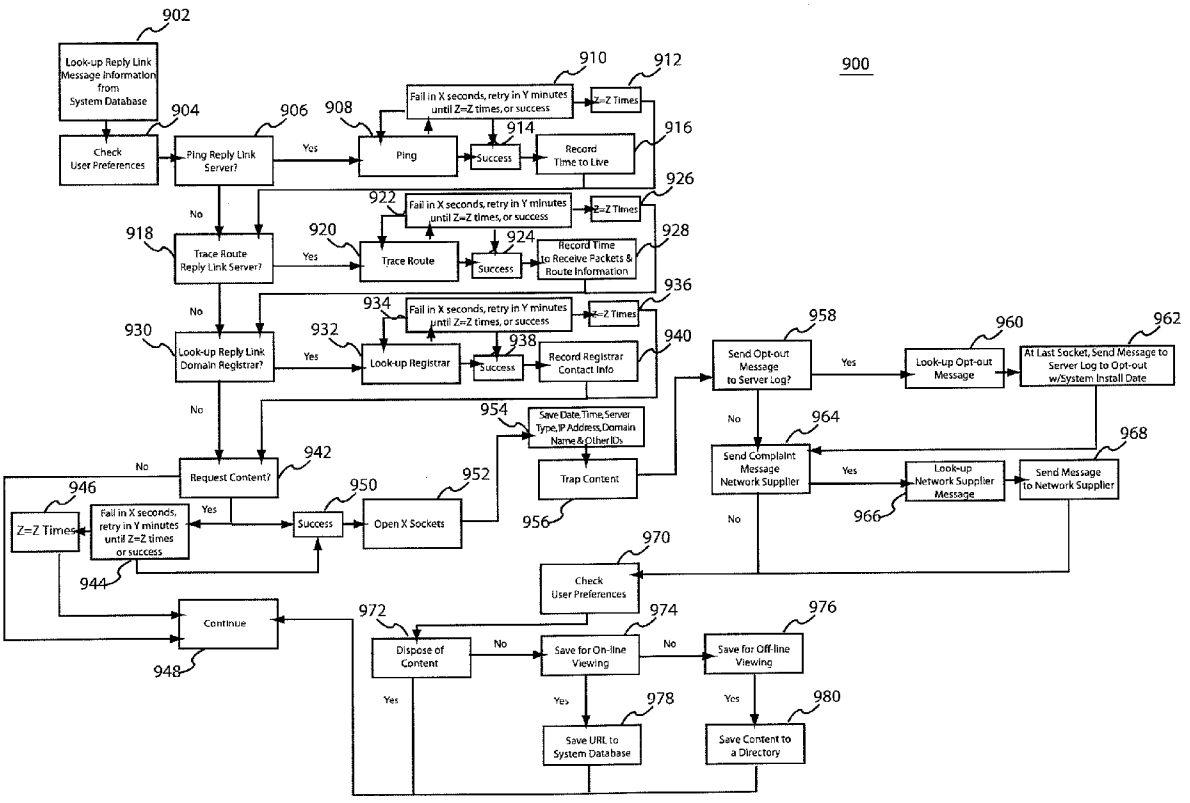

900
902
Look-up Reply Link Message Information from System Database
904
Check User Preferences
906
Ping Reply Link Server?
Yes
908
Ping
910
Fail in X seconds, retry in Y minutes until Z=Z times, or success
912
Z=Z Times
914
Success
916
Record Time to Live
No
918
Trace Route Reply Link Server?
920
Trace Route
922
Fail in X seconds, retry in Y minutes until Z=Z times, or success
924
Success
926
Z=Z Times
928
Record Time to Receive Packets & Route Information
No
930
Look-up Reply Link Domain Registrar?
932
Look-up Registrar
934
Fail in X seconds, retry in Y minutes until Z=Z times, or success
936
Z=Z Times
938
Success
940
Record Registrar Contact Info
No
942
Request Content?
946
Z=Z Times
Fail in X seconds, retry in Y minutes until Z=Z times or success
944
950
Success
952
Open X Sockets
954
Save Date, Time, Server Type, IP Address, Domain Name & Other IDs
956
Trap Content
948
Continue
958
Send Opt-out Message to Server Log?
960
Look-up Opt-out Message
962
At Last Socket, Send Message to Server Log to Opt-out w/System Install Date
964
Send Complaint Message Network Supplier
966
Look-up Network Supplier Message
968
Send Message to Network Supplier
970
Check User Preferences
972
Dispose of Content
974
Save for On-line Viewing
976
Save for Off-line Viewing
978
Save URL to System Database
980
Save Content to a Directory

Figure 9

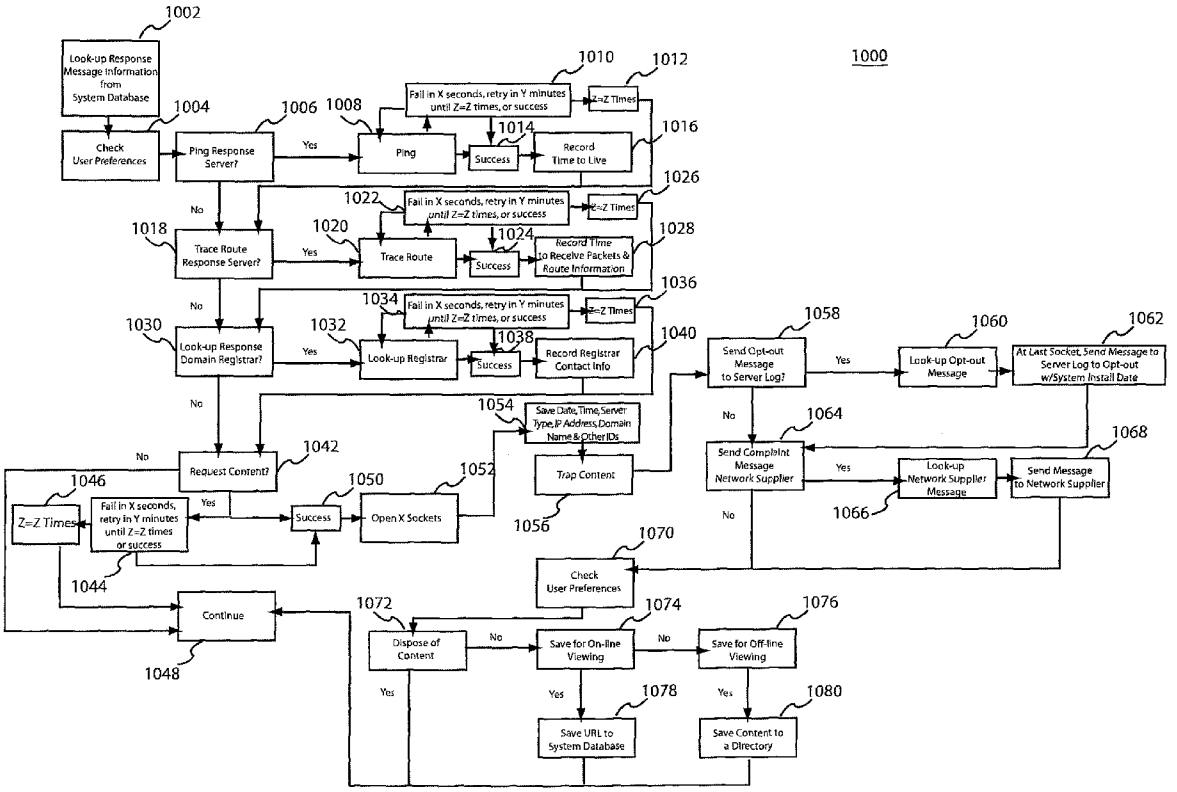

1000
1002
Look-up Response Message Information from System Database
1004
Check User Preferences
1006
Ping Response Server?
Yes
No
1008
Ping
1010
Fail in X seconds, retry in Y minutes until Z=Z times, or success
Z=Z Times
1012
Success
1014
Record Time to Live
1016
1018
Trace Route Response Server?
Yes
No
1020
Trace Route
1022
Fail in X seconds, retry in Y minutes until Z=Z times, or success
Z=Z Times
1024
Success
1026
Record Time to Receive Packets & Route Information
1028
1030
Look-up Response Domain Registrar?
Yes
No
1032
Look-up Registrar
1034
Fail in X seconds, retry in Y minutes until Z=Z times, or success
Z=Z Times
1036
1038
Success
1040
Record Registrar Contact Info
1042
Request Content?
Yes
No
1044
1046
Z=Z Times
Fail in X seconds, retry in Y minutes until Z=Z times or success
1048
Continue
1050
Success
1052
Open X Sockets
1054
Save Date, Time, Server Type, IP Address, Domain Name & Other IDs
1056
Trap Content
1058
Send Opt-out Message to Server Log?
Yes
No
1060
Look-up Opt-out Message
1062
At Last Socket, Send Message to Server Log to Opt-out w/System Install Date
1064
Send Complaint Message Network Supplier
Yes
No
1066
Look-up Network Supplier Message
1068
Send Message to Network Supplier
1070
Check User Preferences
1072
Dispose of Content
No
Yes
1074
Save for On-line Viewing
No
Yes
1076
Save for Off-line Viewing
Yes
1078
Save URL to System Database
1080
Save Content to a Directory

Figure 10

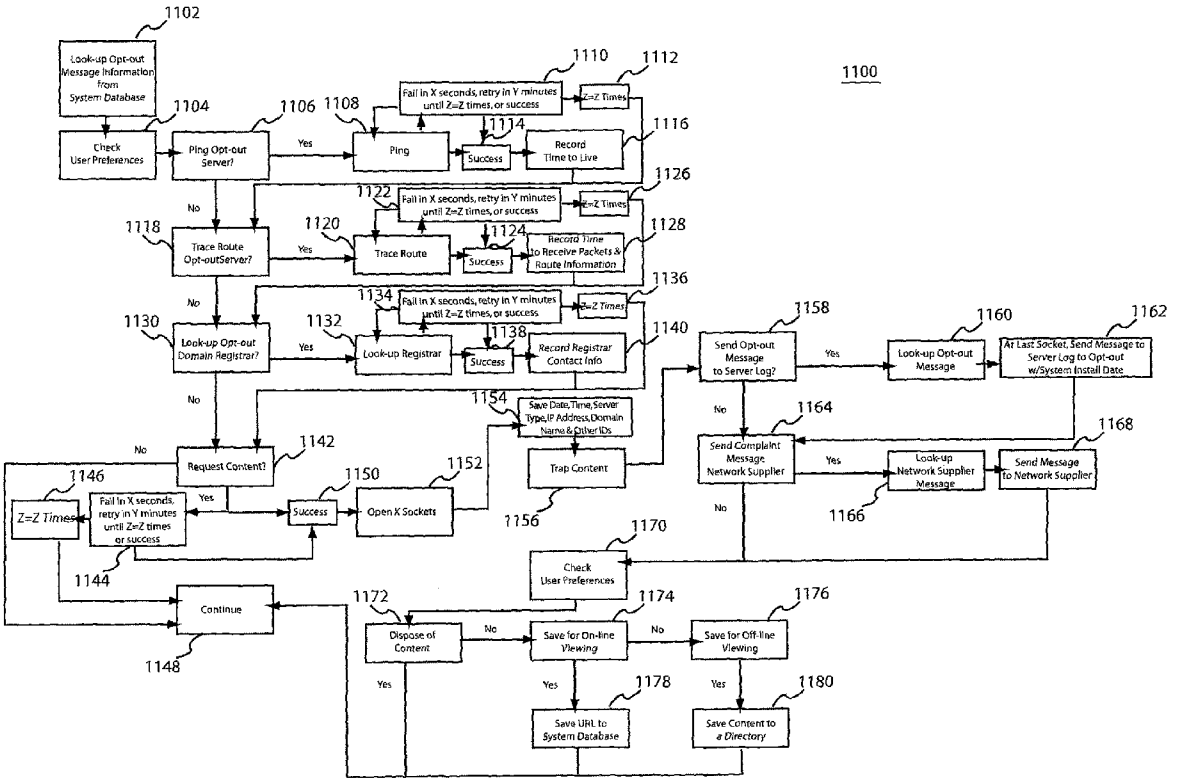

1100
1102
Look-up Opt-out Message Information from System Database
1104
Check User Preferences
1106
Ping Opt-out Server?
Yes
No
1108
Ping
1110
Fail in X seconds, retry in Y minutes until Z=Z times, or success
Z=Z Times
1112
1114
Success
1116
Record Time to Live
1118
Trace Route Opt-outServer?
1120
Trace Route
1122
Fail in X seconds, retry in Y minutes until Z=Z times, or success
Z=Z Times
1124
Success
1126
1128
Record Time to Receive Packets & Route Information
1130
Look-up Opt-out Domain Registrar?
1132
Look-up Registrar
1134
Fail in X seconds, retry in Y minutes until Z=Z times, or success
Z=Z Times
1136
1138
Success
1140
Record Registrar Contact Info
1142
Request Content?
1144
1146
Z=Z Times
Fail in X seconds, retry in Y minutes until Z=Z times or success
1148
Continue
1150
Success
1152
Open X Sockets
1154
Save Date,Time,Server Type,IP Address,Domain Name & Other IDs
1156
Trap Content
1158
Send Opt-out Message to Server Log?
1160
Look-up Opt-out Message
1162
At Last Socket, Send Message to Server Log to Opt-out w/System Install Date
1164
Send Complaint Message Network Supplier
1166
Look-up Network Supplier Message
1168
Send Message To Network Supplier
1170
Check User Preferences
1172
Dispose of Content
1174
Save for On-line Viewing
1176
Save for Off-line Viewing
1178
Save URL to System Database
1180
Save Content to a Directory

Figure 11

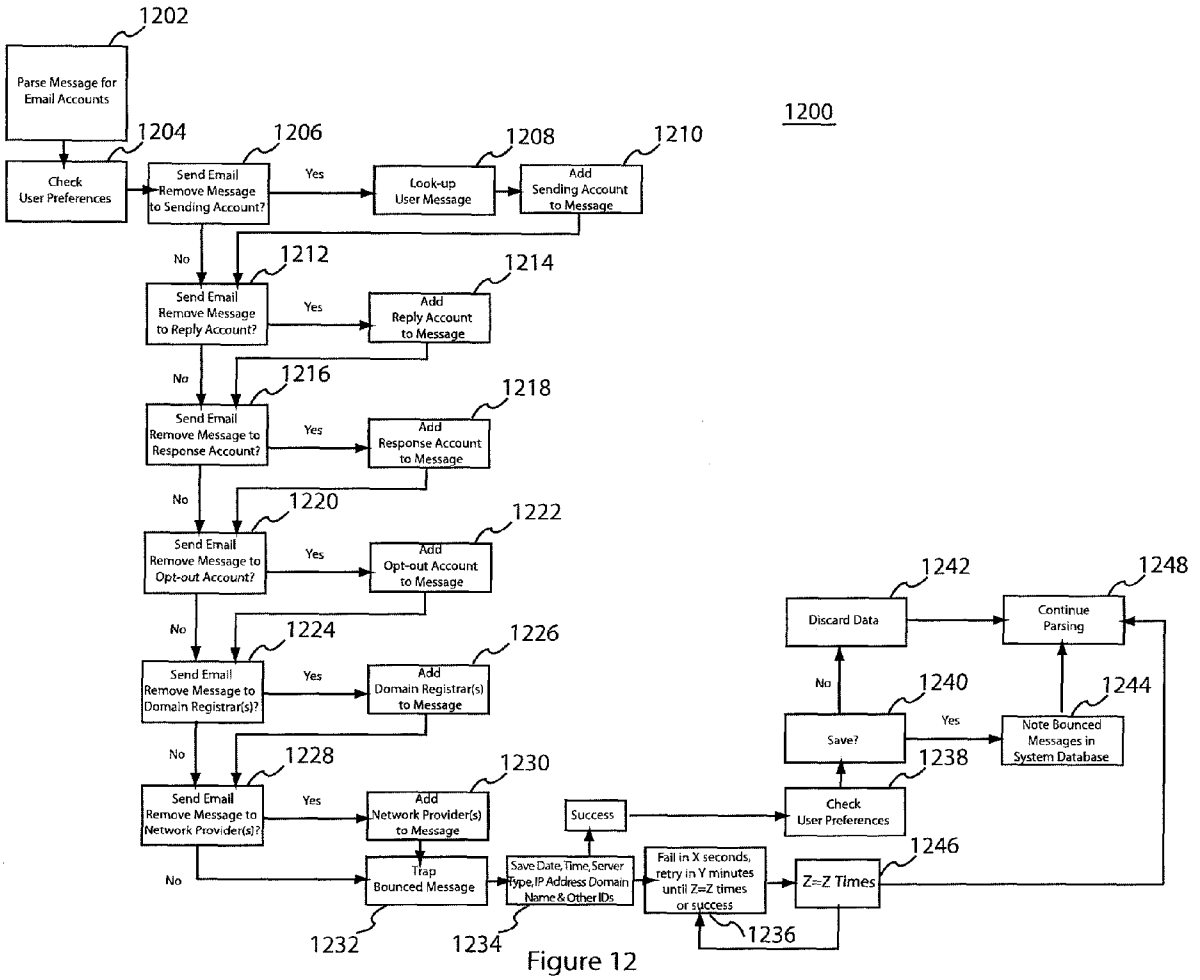

1200
1202
Parse Message for Email Accounts
1204
Check User Preferences
1206
Send Email Remove Message to Sending Account?
Yes
1208
Look-up User Message
1210
Add Sending Account to Message
No
1212
Send Email Remove Message to Reply Account?
Yes
1214
Add Reply Account to Message
No
1216
Send Email Remove Message to Response Account?
Yes
1218
Add Response Account to Message
No
1220
Send Email Remove Message to Opt-out Account?
Yes
1222
Add Opt-out Account to Message
No
1224
Send Email Remove Message to Domain Registrar(s)?
Yes
1226
Add Domain Registrar(s) to Message
No
1228
Send Email Remove Message to Network Provider(s)?
Yes
1230
Add Network Provider(s) to Message
No
Trap Bounced Message
1232
Save Date, Time, Server Type, IP Address Domain Name & Other IDs
1234
Success
Fail in X seconds, retry in Y minutes until Z=Z times or success
1236
Z=Z Times
1246
Check User Preferences
1238
Save?
No
1240
Discard Data
1242
Yes
Note Bounced Messages in System Database
1244
Continue Parsing
1248

Figure 12

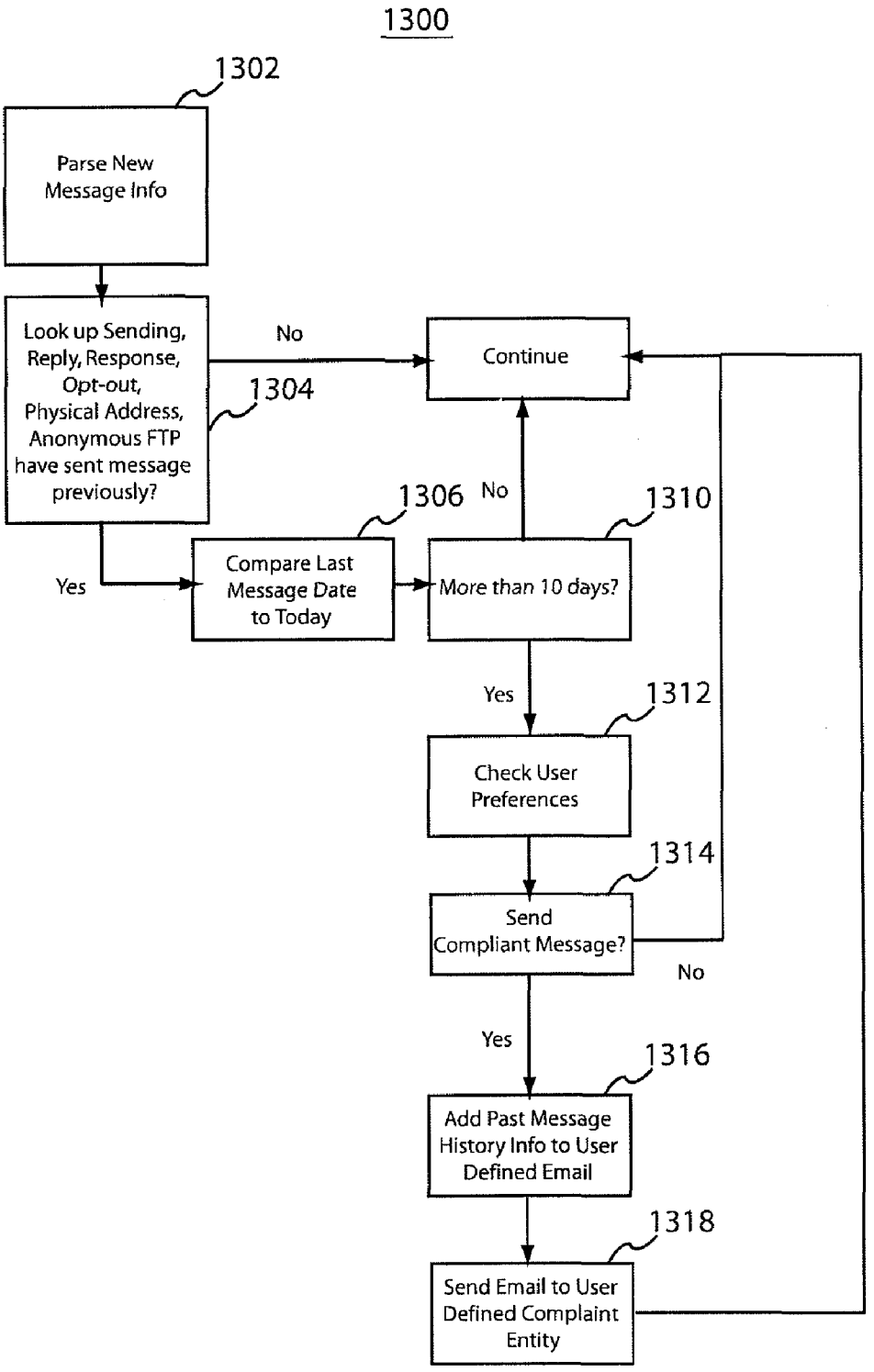

1300
1302
Parse New Message Info
Look up Sending, Reply, Response, Opt-out, Physical Address, Anonymous FTP have sent message previously?
1304
No
Continue
Yes
1306
Compare Last Message Date to Today
No
1310
More than 10 days?
Yes
1312
Check User Preferences
1314
Send Compliant Message?
No
Yes
1316
Add Past Message History Info to User Defined Email
1318
Send Email to User Defined Complaint Entity

Figure 13

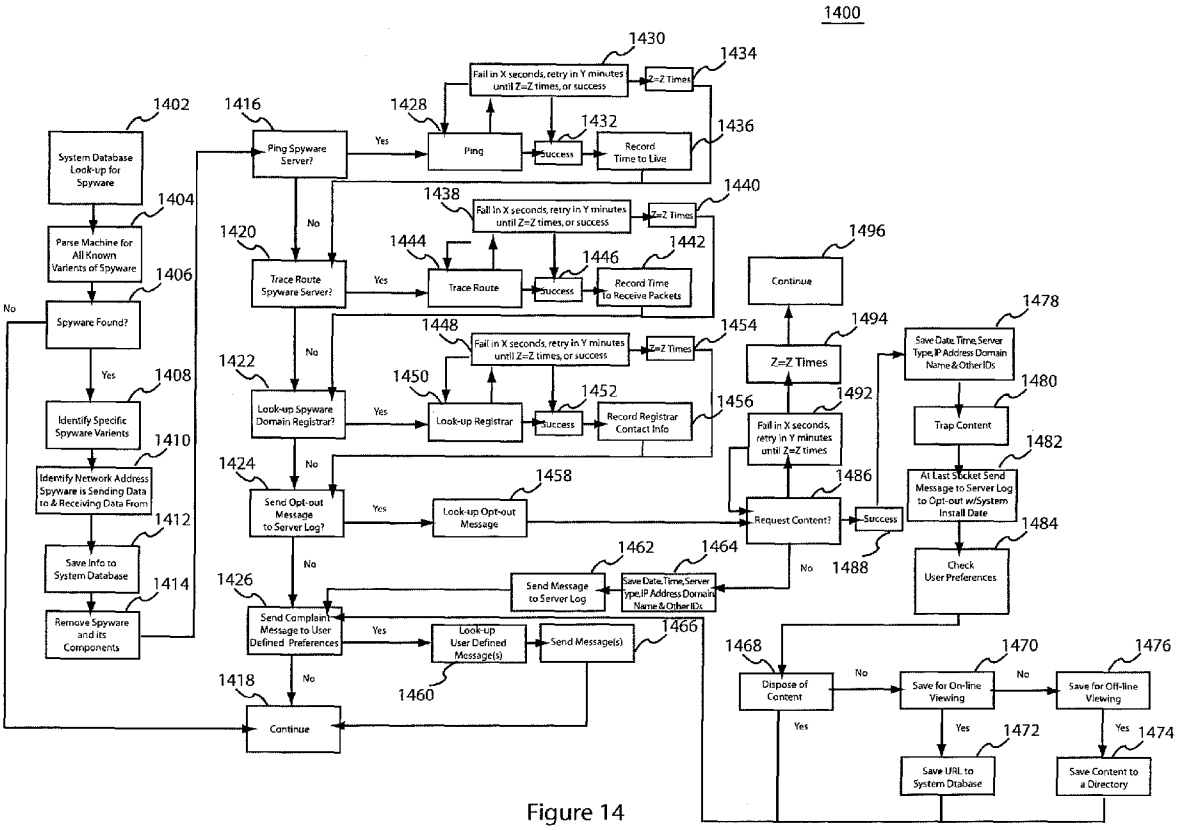

1400
System Database Look-up for Spyware
Parse Machine for All Known Variants of Spyware
Spyware Found?
Identify Specific Spyware Variants
Identify Network Address Spyware is Sending Data to & Receiving Data From
Save Info to System Database
Remove Spyware and its Components
Ping Spyware Server?
Ping
Fail in X seconds, retry in Y minutes until Z=Z times, or success
Z=Z Times
Success
Record Time to Live
Trace Route Spyware Server?
Trace Route
Record Time To Receive Packets
Look-up Spyware Domain Registrar?
Look-up Registrar
Record Registrar Contact Info
Send Opt-out Message to Server Log?
Look-up Opt-out Message
Send Complaint Message to User Defined Preferences
Look-up User Defined Message(s)
Send Message(s)
Continue
Send Message to Server Log
Save Date,Time,Server Type,IP Address Domain Name & Other IDs
Request Content?
Fail in X seconds, retry in Y minutes until Z=Z times
Z=Z Times
Continue
Dispose of Content
Save for On-line Viewing
Save for Off-line Viewing
Save URL to System Database
Save Content to a Directory
Check User Preferences
At Last Socket Send Message to Server Log to Opt-out w/System Install Date
Trap Content
Save Date,Time,Server Type,IP Address Domain Name & Other IDs
Yes
No
Success

Figure 14

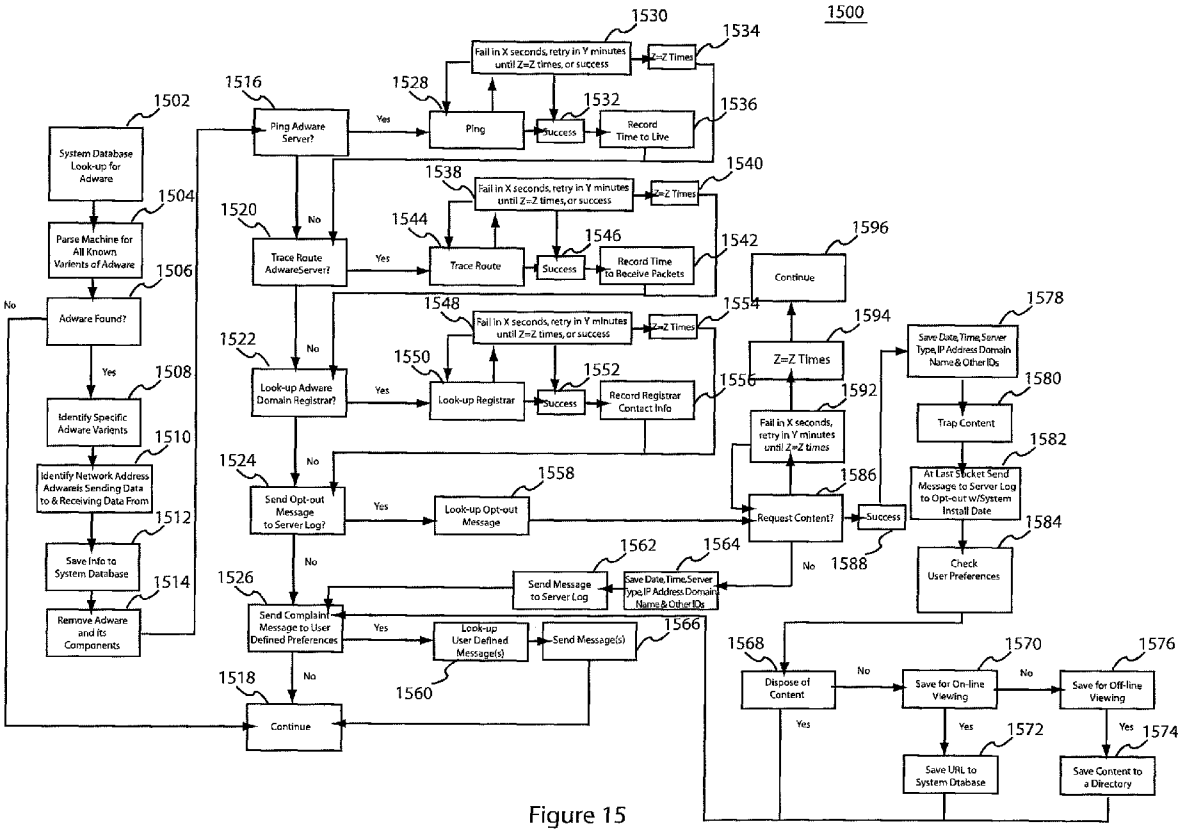

1500
System Database Look-up for Adware
Parse Machine for All Known Variants of Adware
Adware Found?
Identify Specific Adware Variants
Identify Network Address Adware is Sending Data to & Receiving Data From
Save Info to System Database
Remove Adware and its Components
Ping Adware Server?
Ping
Success
Record Time to Live
Fail in X seconds, retry in Y minutes until Z=Z times, or success
Z=Z Times
Trace Route AdwareServer?
Trace Route
Record Time to Receive Packets
Look-up Adware Domain Registrar?
Look-up Registrar
Record Registrar Contact Info
Send Opt-out Message to Server Log?
Look-up Opt-out Message
Send Complaint Message to User Defined Preferences
Look-up User Defined Message(s)
Send Message(s)
Send Message to Server Log
Save Date, Time, Server Type, IP Address, Domain Name & Other IDs
Continue
Request Content?
Fail in X seconds, retry in Y minutes until Z=Z times
Dispose of Content
Save for On-line Viewing
Save for Off-line Viewing
Save URL to System Database
Save Content to a Directory
Trap Content
At Last Socket Send Message to Server Log to Opt-out w/System Install Date
Check User Preferences
Save Date, Time, Server Type, IP Address, Domain Name & Other IDs
Yes
No
Success

Figure 15

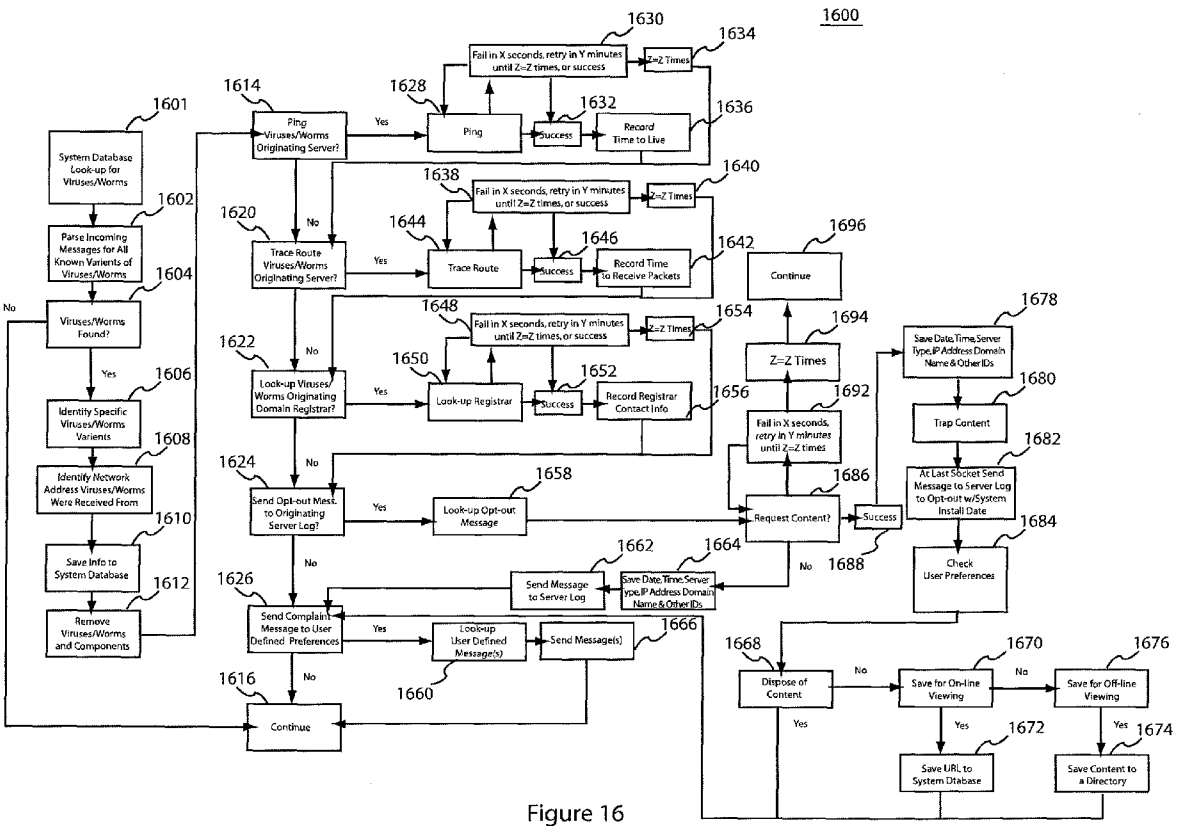

1600
System Database Look-up for Viruses/Worms
1601
Parse Incoming Messages for All Known Variants of Viruses/Worms
1602
Viruses/Worms Found?
1604
Identify Specific Viruses/Worms Variants
1606
Identify Network Address Viruses/Worms Were Received From
1608
Save Info to System Database
1610
Remove Viruses/Worms and Components
1612
Ping Viruses/Worms Originating Server?
1614
Ping
1628
Fail in X seconds, retry in Y minutes until Z=Z times, or success
1630
Success
1632
Z=Z Times
1634
Record Time to Live
1636
Trace Route Viruses/Worms Originating Server?
1620
Trace Route
1644
Fail in X seconds, retry in Y minutes until Z=Z times, or success
1638
Success
1646
Z=Z Times
1640
Record Time to Receive Packets
1642
Look-up Viruses/Worms Originating Domain Registrar?
1622
Look-up Registrar
1650
Fail in X seconds, retry in Y minutes until Z=Z times, or success
1648
Success
1652
Z=Z Times
1654
Record Registrar Contact Info
1656
Send Opt-out Mess. to Originating Server Log?
1624
Look-up Opt-out Message
1658
Send Message to Server Log
1662
Save Date,Time,Server Type,IP Address Domain Name & Other IDs
1664
Send Complaint Message to User Defined Preferences
1626
Look-up User Defined Message(s)
Send Message(s)
1666
1660
Continue
1616
Continue
1696
Z=Z Times
1694
Fail in X seconds, retry in Y minutes until Z=Z times
1692
Request Content?
1686
Success
1688
Save Date,Time,Server Type,IP Address Domain Name & Other IDs
1678
Trap Content
1680
At Last Socket Send Message to Server Log to Opt-out w/System Install Date
1682
Check User Preferences
1684
Dispose of Content
1668
Save for On-line Viewing
1670
Save for Off-line Viewing
1676
Save URL to System Database
1672
Save Content to a Directory
1674
Yes
No

Figure 16

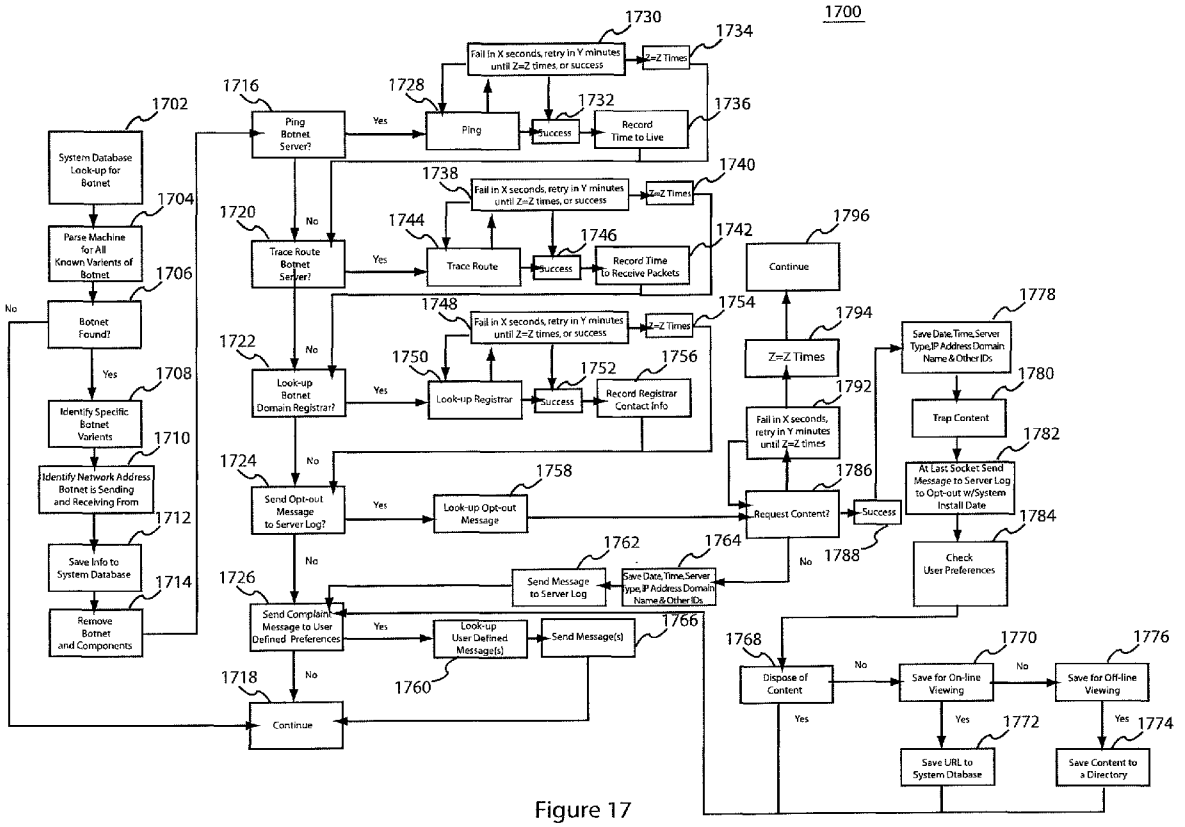

1700
System Database Look-up for Botnet
Parse Machine for All Known Varients of Botnet
Botnet Found?
Identify Specific Botnet Varients
Identify Network Address Botnet is Sending and Receiving From
Save Info to System Database
Remove Botnet and Components
Ping Botnet Server?
Ping
Success
Record Time to Live
Fail in X seconds, retry in Y minutes until Z=Z times, or success
Z=Z Times
Trace Route Botnet Server?
Trace Route
Record Time to Receive Packets
Look-up Botnet Domain Registrar?
Look-up Registrar
Record Registrar Contact Info
Send Opt-out Message to Server Log?
Look-up Opt-out Message
Send Complaint Message to User Defined Preferences
Look-up User Defined Message(s)
Send Message(s)
Send Message to Server Log
Save Date,Time,Server Type,IP Address,Domain Name & Other IDs
Continue
Request Content?
Z=Z Times
Dispose of Content
Save for On-line Viewing
Save for Off-line Viewing
Save URL to System Database
Save Content to a Directory
Check User Preferences
At Last Socket Send Message to Server Log to Opt-out w/System Install Date
Trap Content
Save Date,Time,Server Type,IP Address,Domain Name & Other IDs
Yes
No
Success

Figure 17

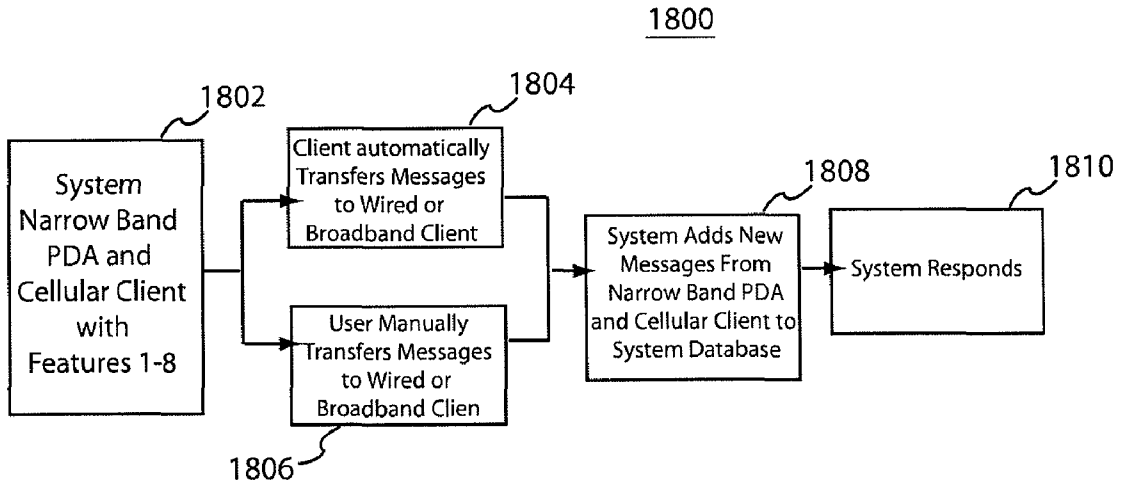


Figure 18

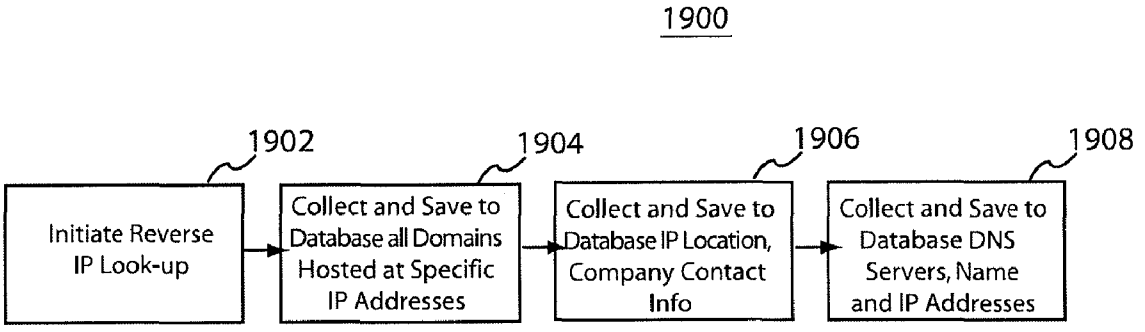


Figure 19

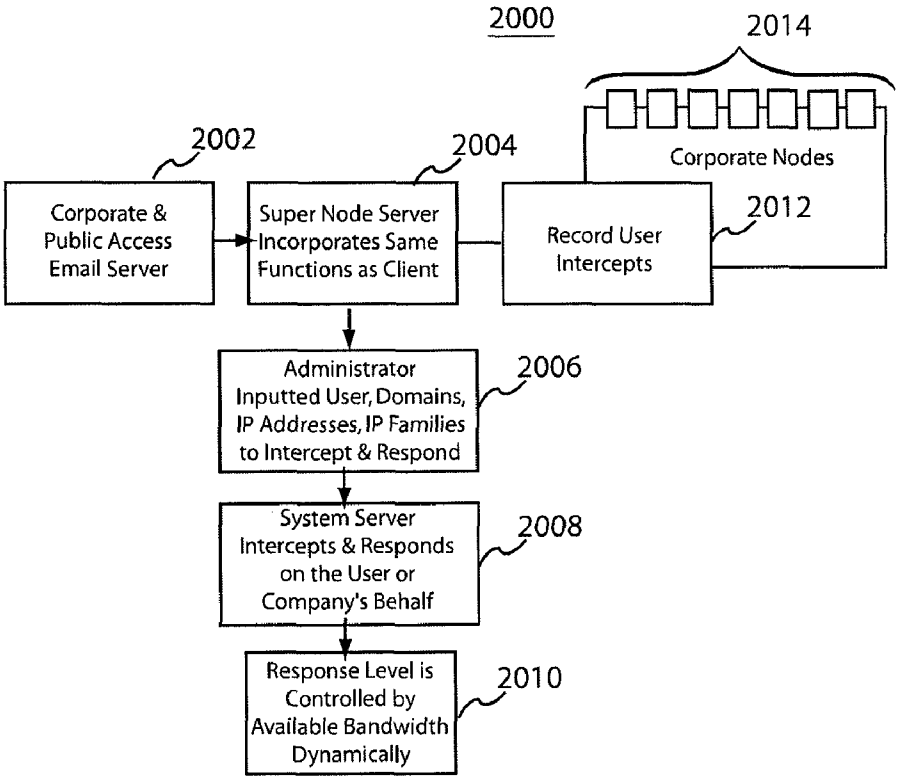


Figure 20

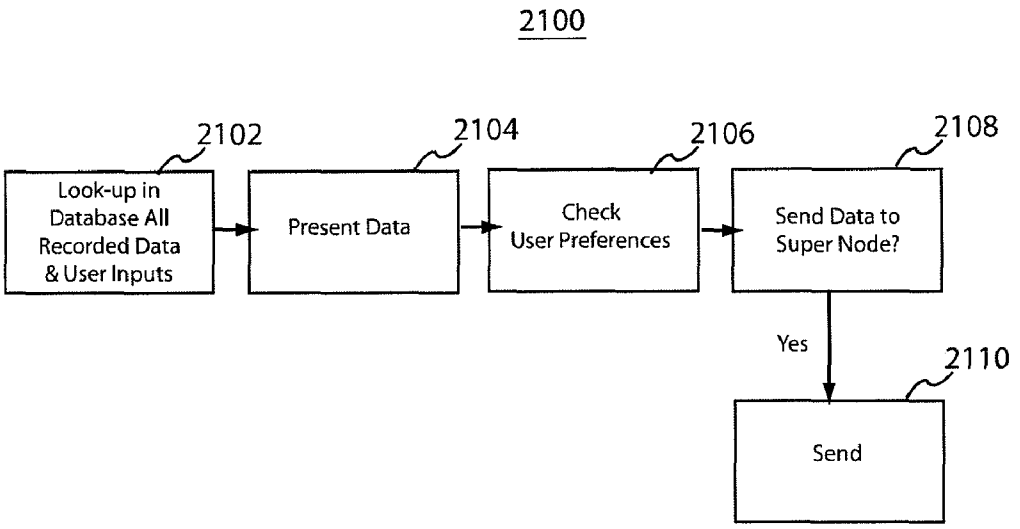


Figure 21

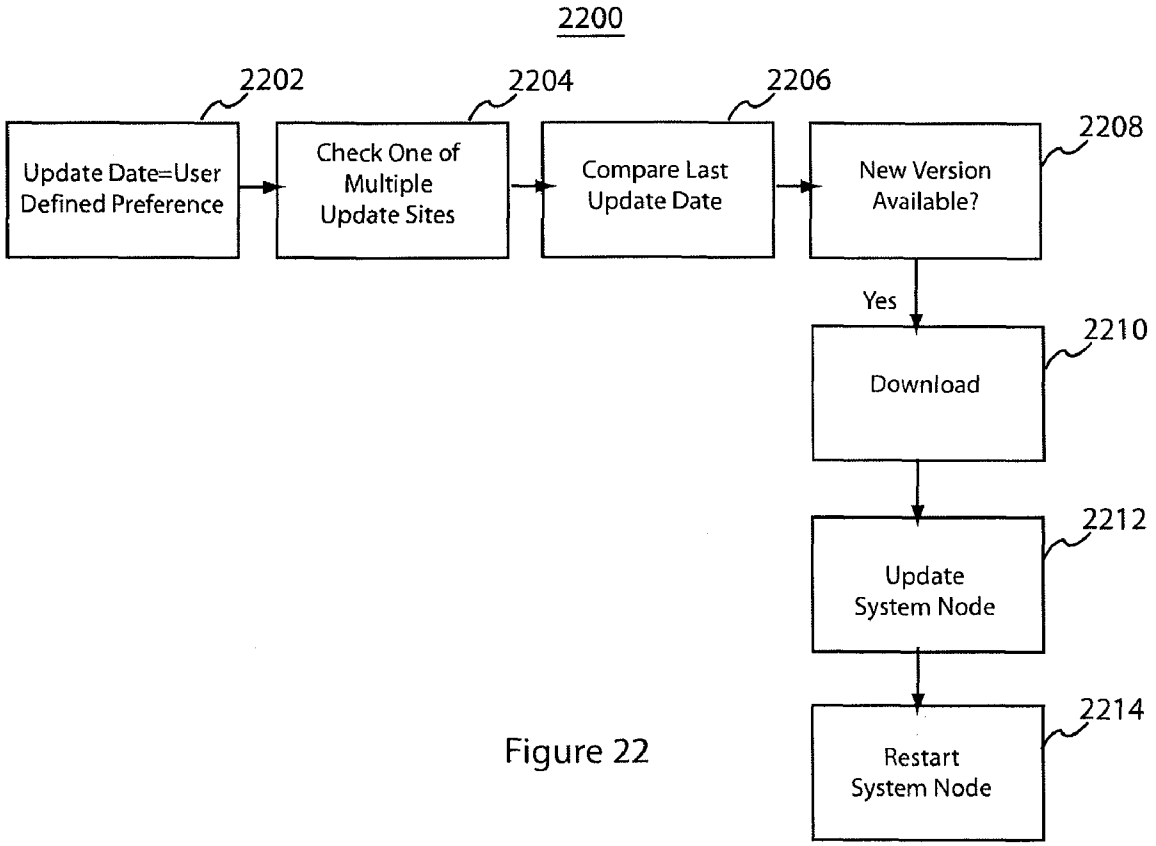


Figure 22

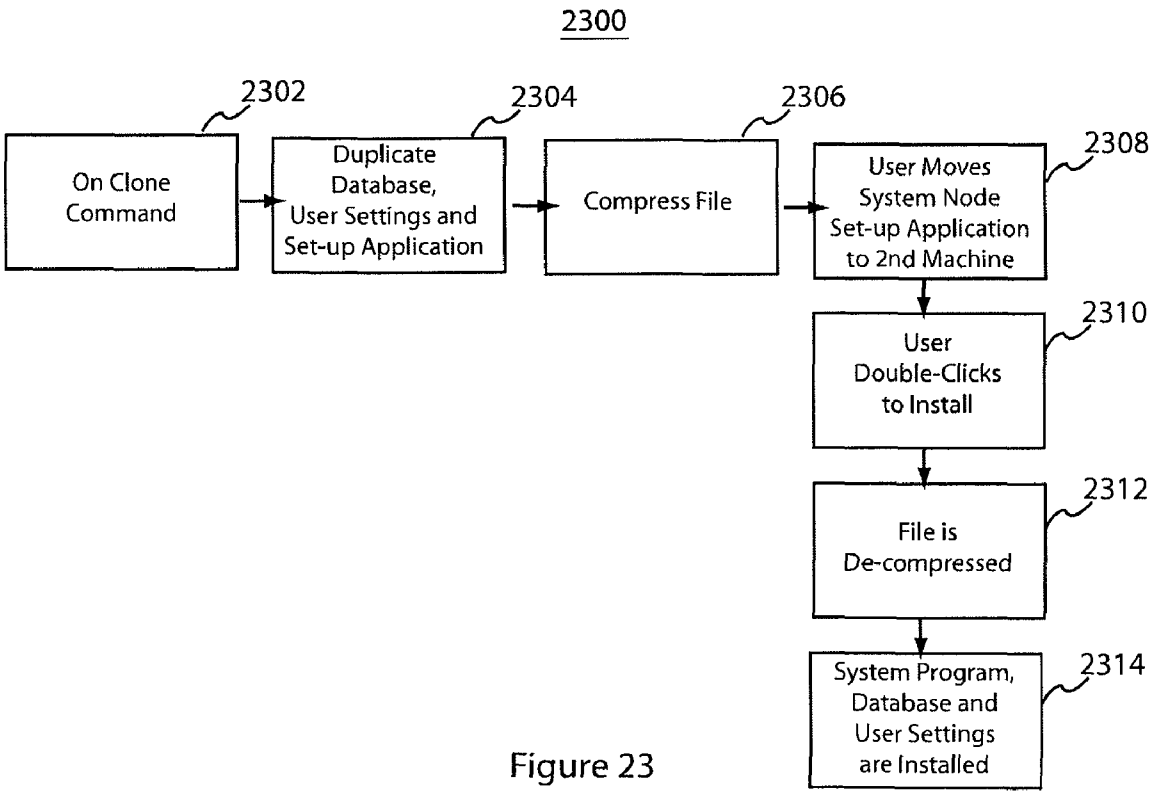


Figure 23

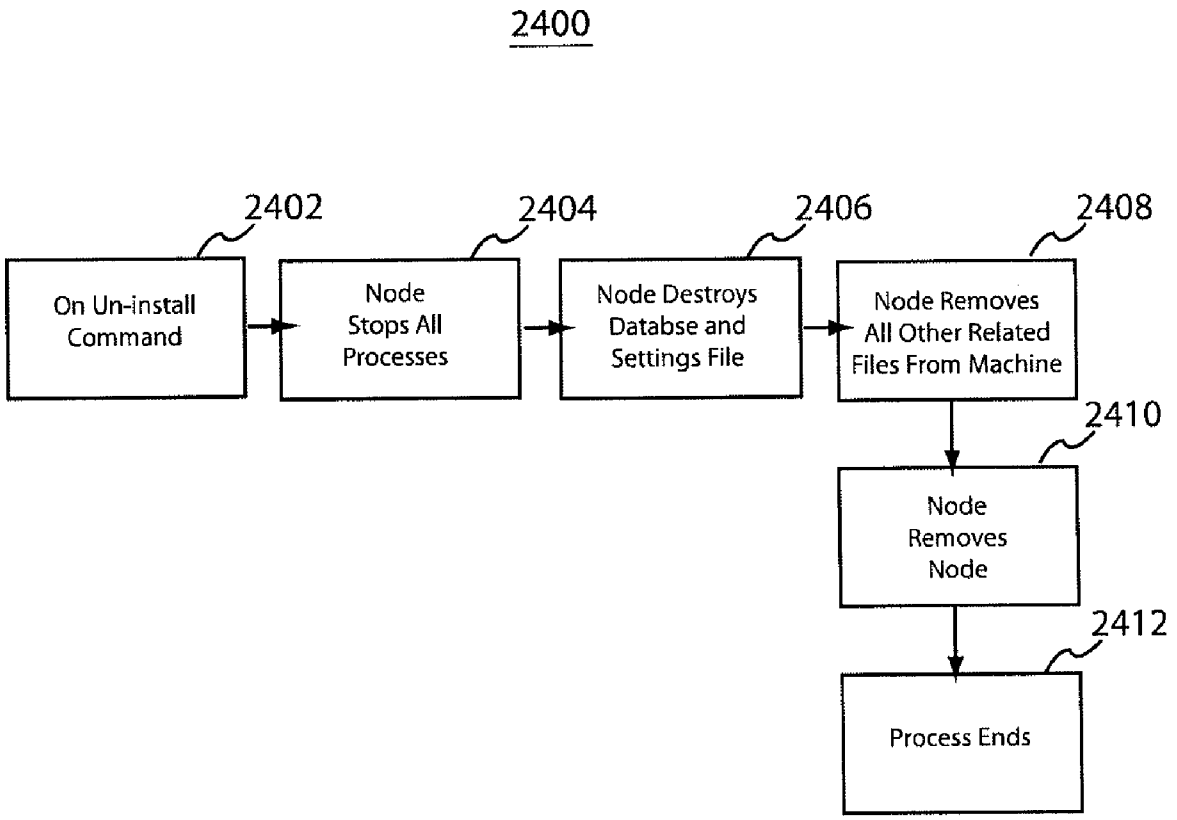

2400
2402
On Un-install Command
2404
Node Stops All Processes
2406
Node Destroys Databse and Settings File
2408
Node Removes All Other Related Files From Machine
2410
Node Removes Node
2412
Process Ends

Figure 24

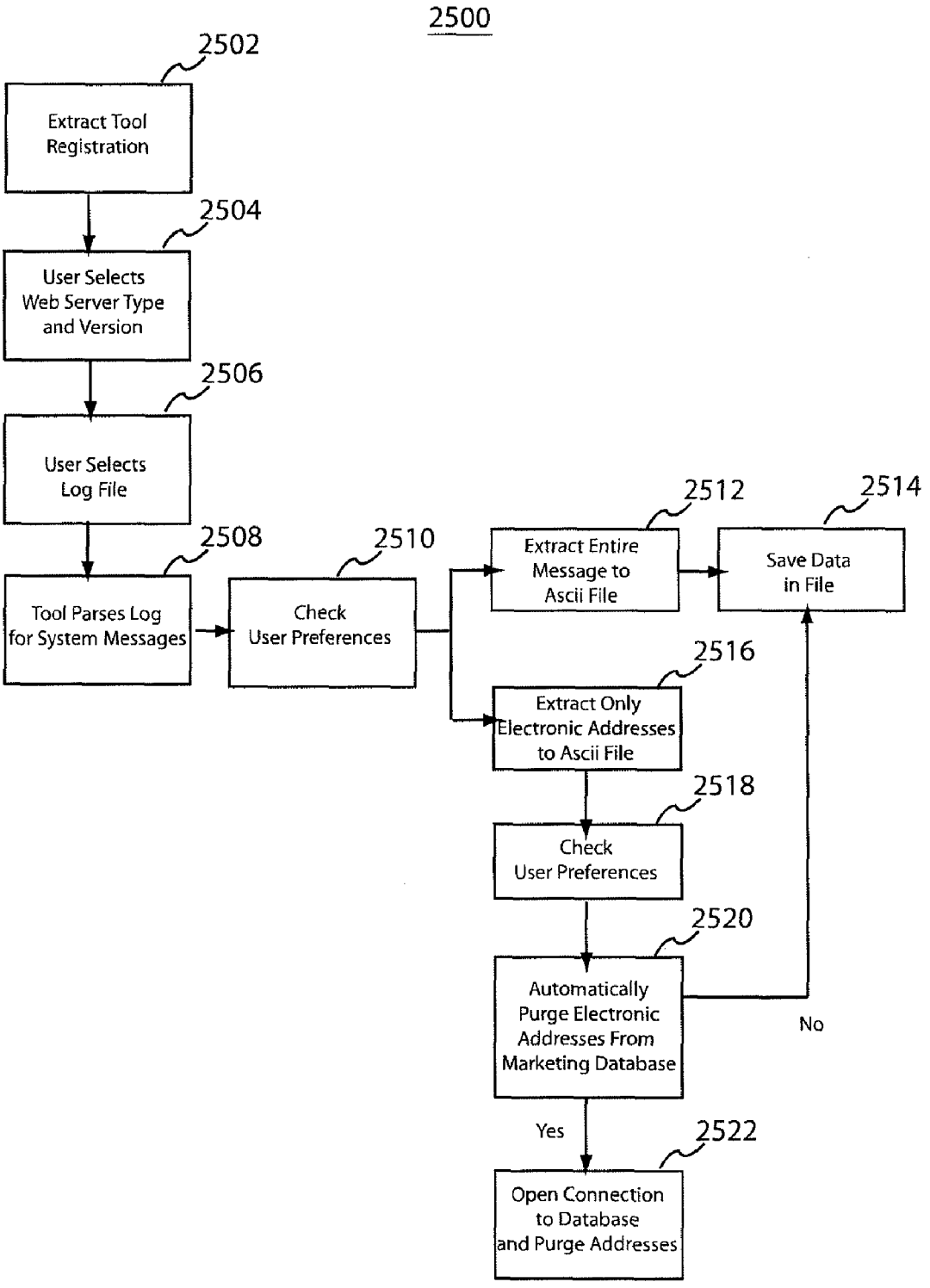

2500
2502
Extract Tool Registration
2504
User Selects Web Server Type and Version
2506
User Selects Log File
2508
Tool Parses Log for System Messages
2510
Check User Preferences
2512
Extract Entire Message to Ascii File
2514
Save Data in File
2516
Extract Only Electronic Addresses to Ascii File
2518
Check User Preferences
2520
Automatically Purge Electronic Addresses From Marketing Database
No
Yes
2522
Open Connection to Database and Purge Addresses

Figure 25

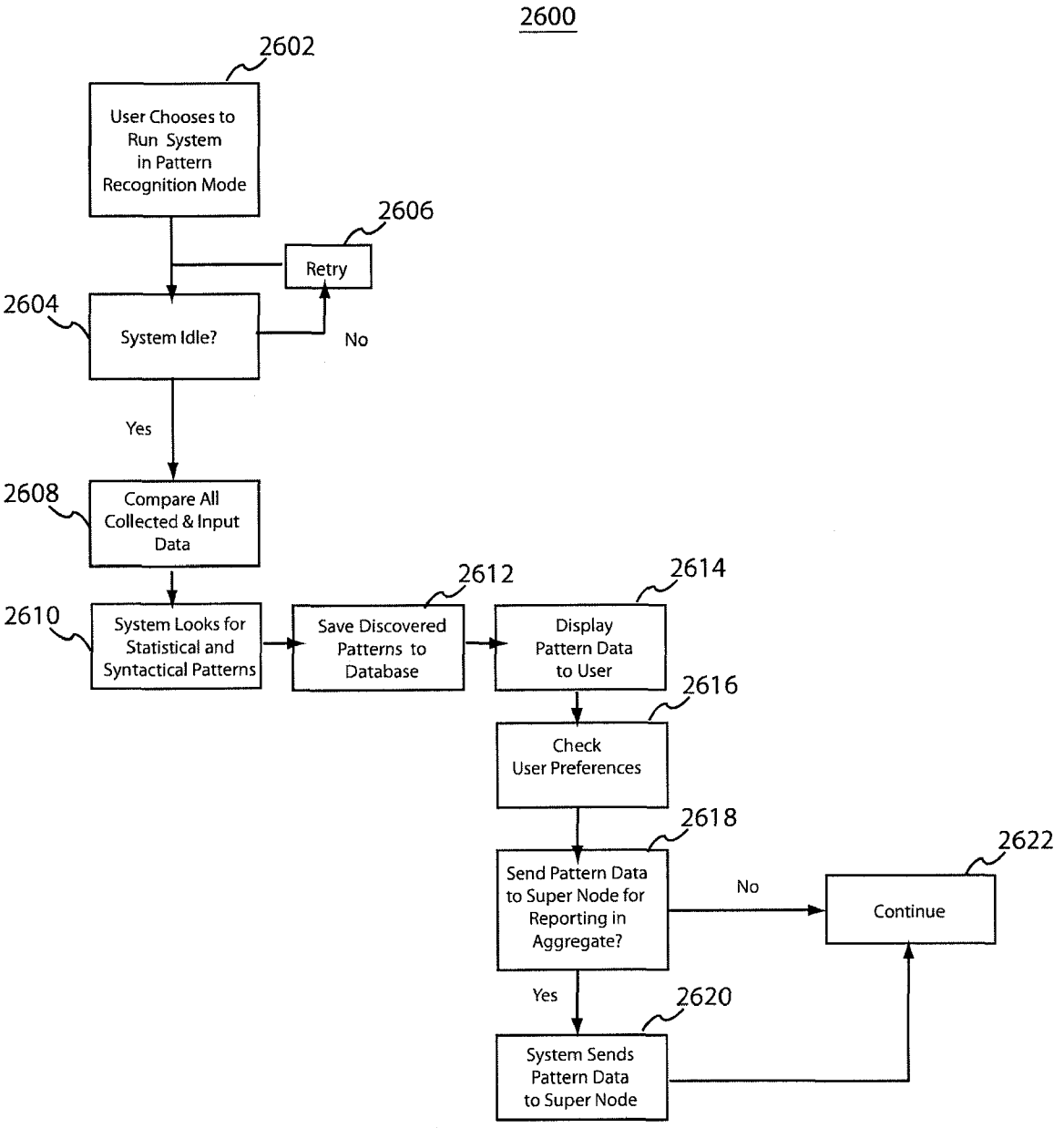

2600
2602
User Chooses to Run System in Pattern Recognition Mode
2606
Retry
2604
System Idle?
No
Yes
2608
Compare All Collected & Input Data
2610
System Looks for Statistical and Syntactical Patterns
2612
Save Discovered Patterns to Database
2614
Display Pattern Data to User
2616
Check User Preferences
2618
Send Pattern Data to Super Node for Reporting in Aggregate?
No
2622
Continue
Yes
2620
System Sends Pattern Data to Super Node

Figure 26

2700

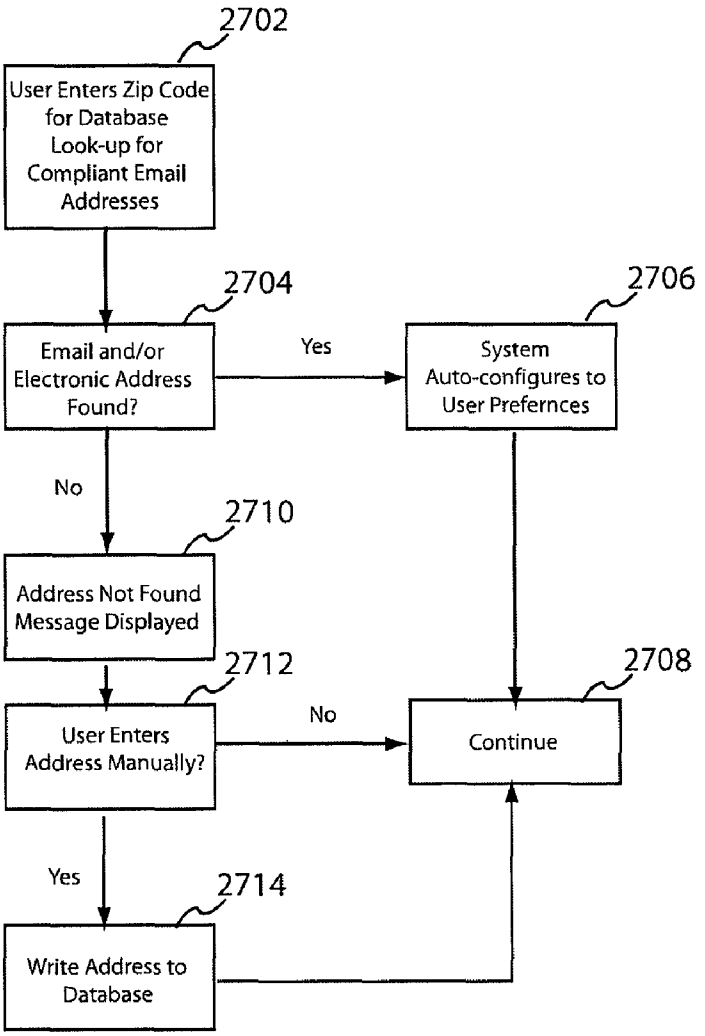


Figure 27

2800

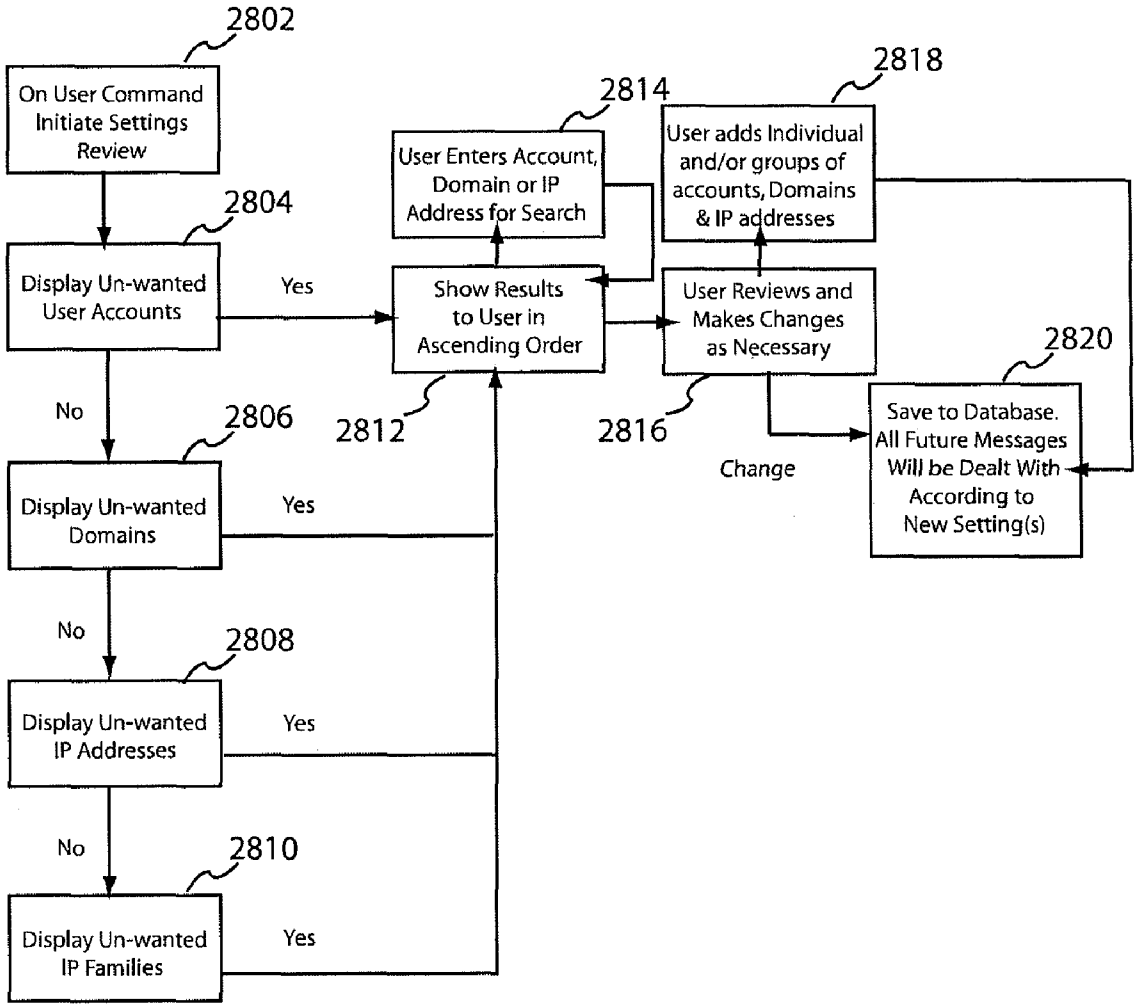


Figure 28

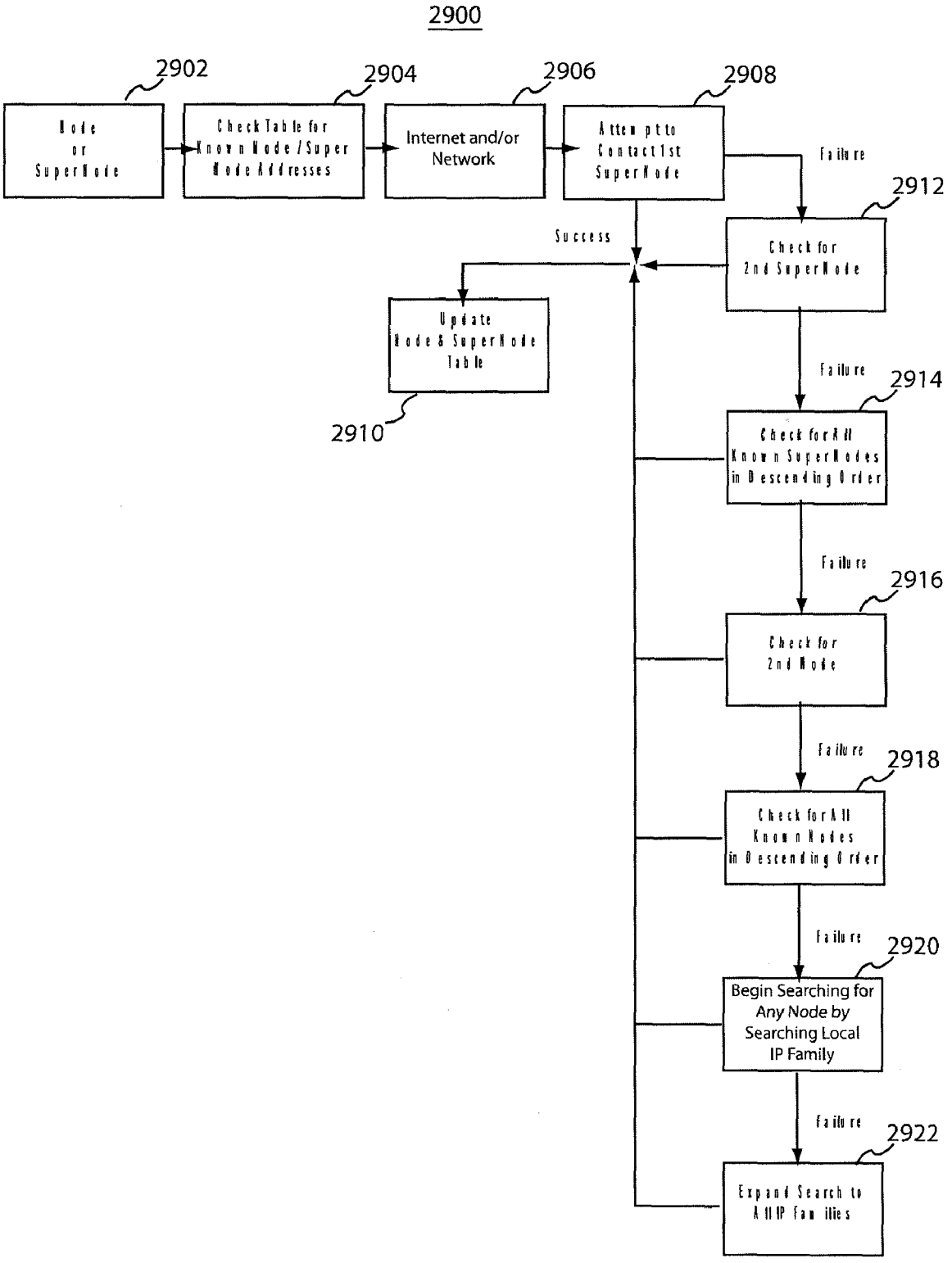

2900
2902
Node or SuperNode
2904
Check Table for Known Node / Super Node Addresses
2906
Internet and/or Network
2908
Attempt to Contact 1st SuperNode
Failure
2912
Check for 2nd SuperNode
Success
Update Node & SuperNode Table
2910
Failure
2914
Check for All Known SuperNodes in Descending Order
Failure
2916
Check for 2nd Node
Failure
2918
Check for All Known Nodes in Descending Order
Failure
2920
Begin Searching for Any Node by Searching Local IP Family
Failure
2922
Expand Search to All IP Families

Figure 29

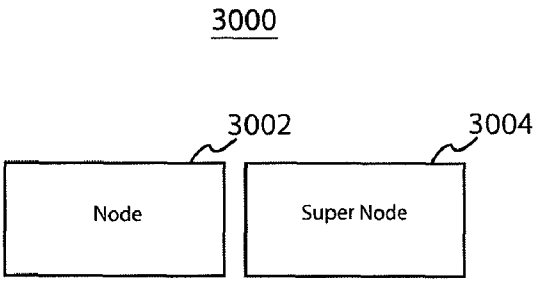


Figure 30

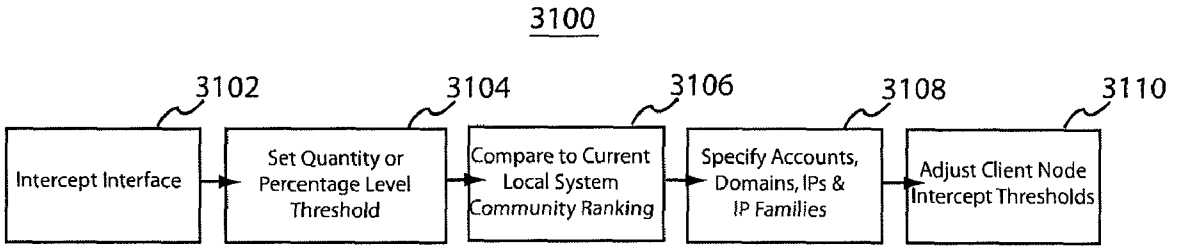


Figure 31

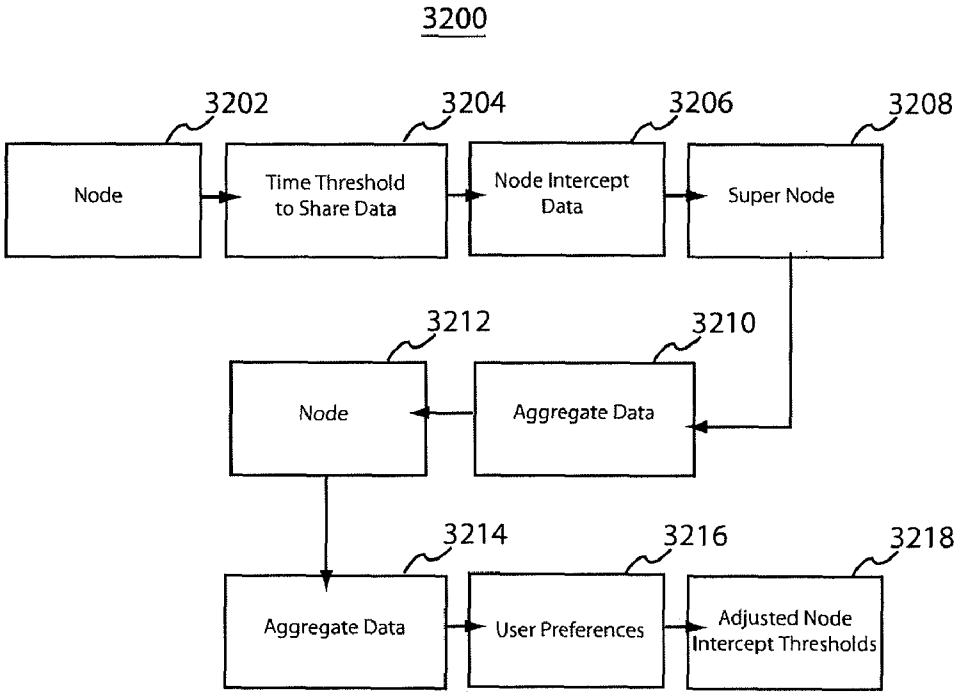


Figure 32

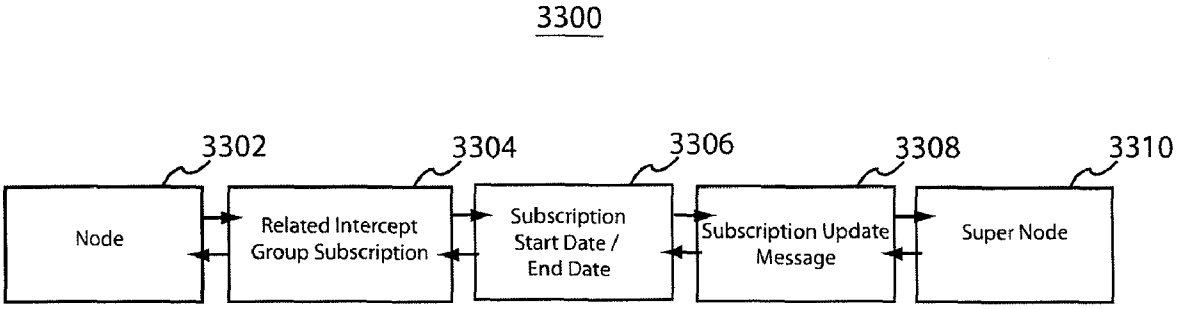


Figure 33

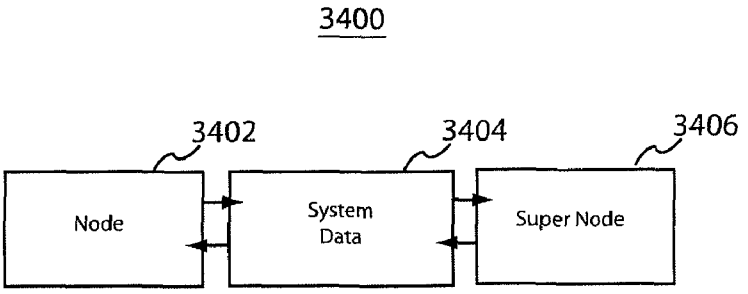


Figure 34

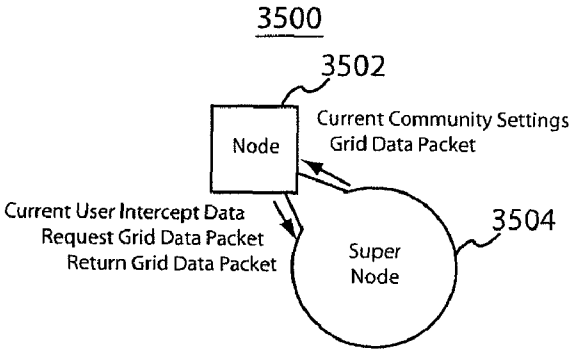


Figure 35

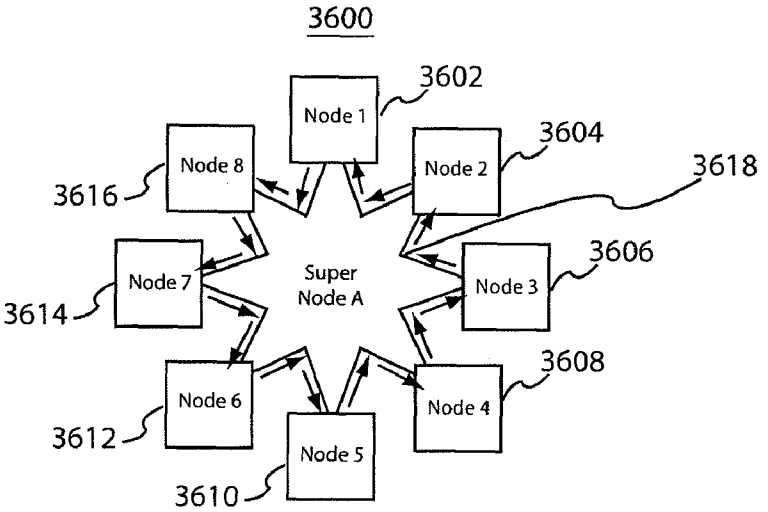


Figure 36

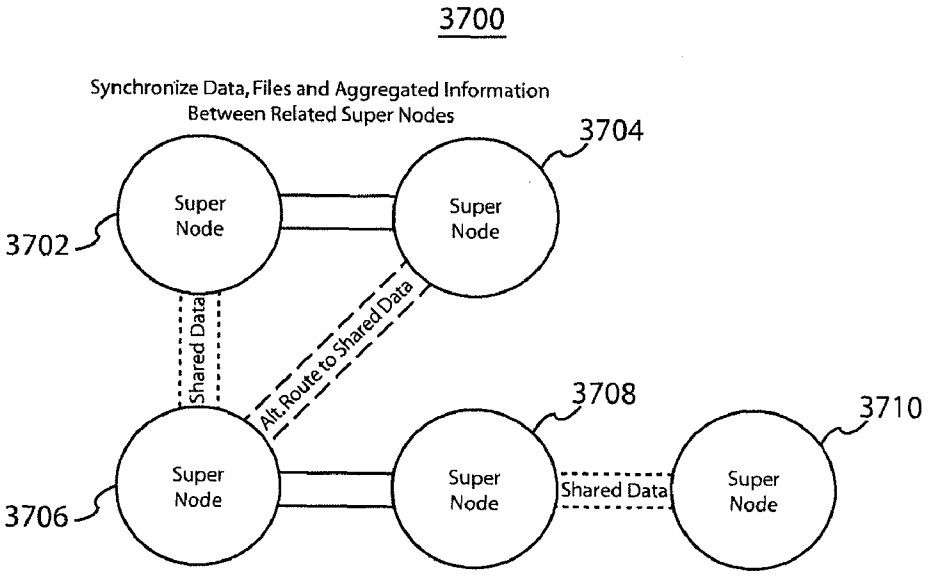


Figure 37

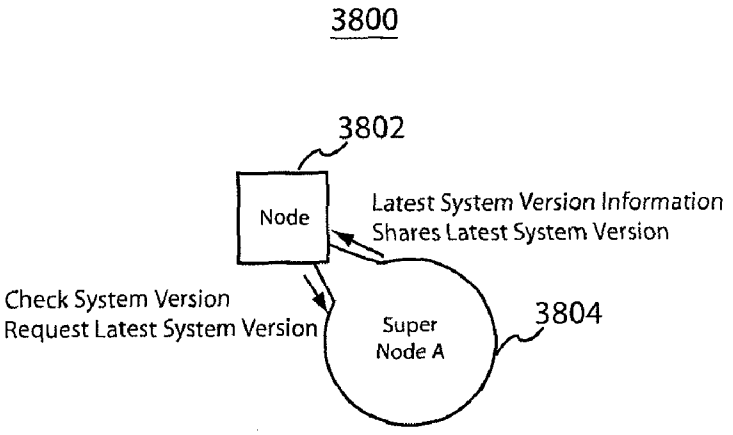


Figure 38

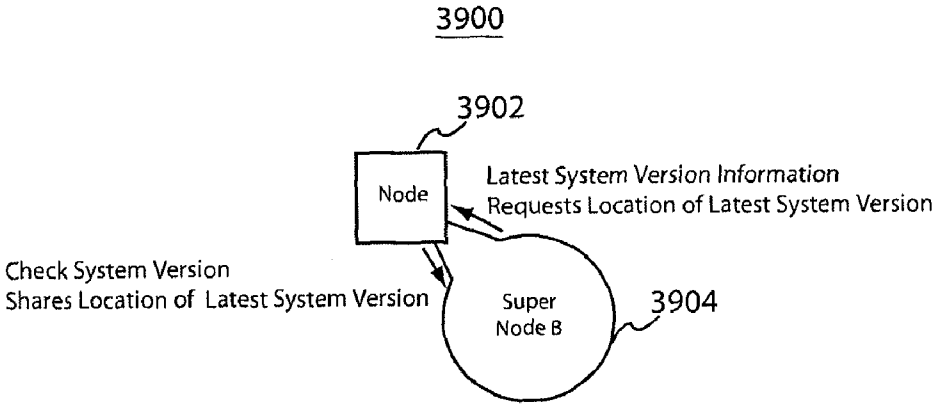


Figure 39

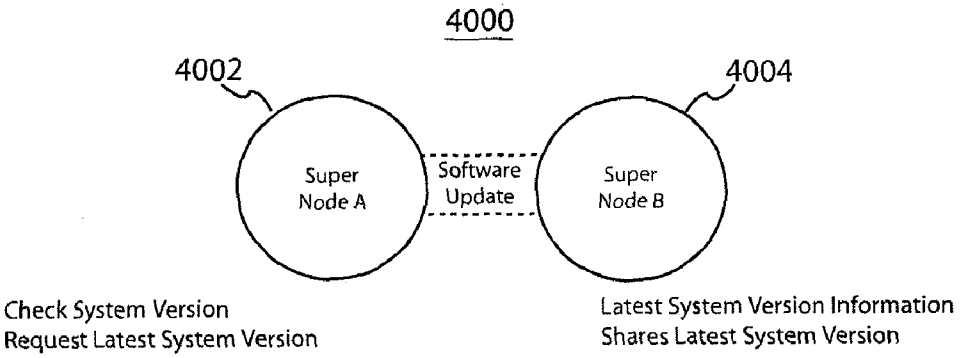


Figure 40

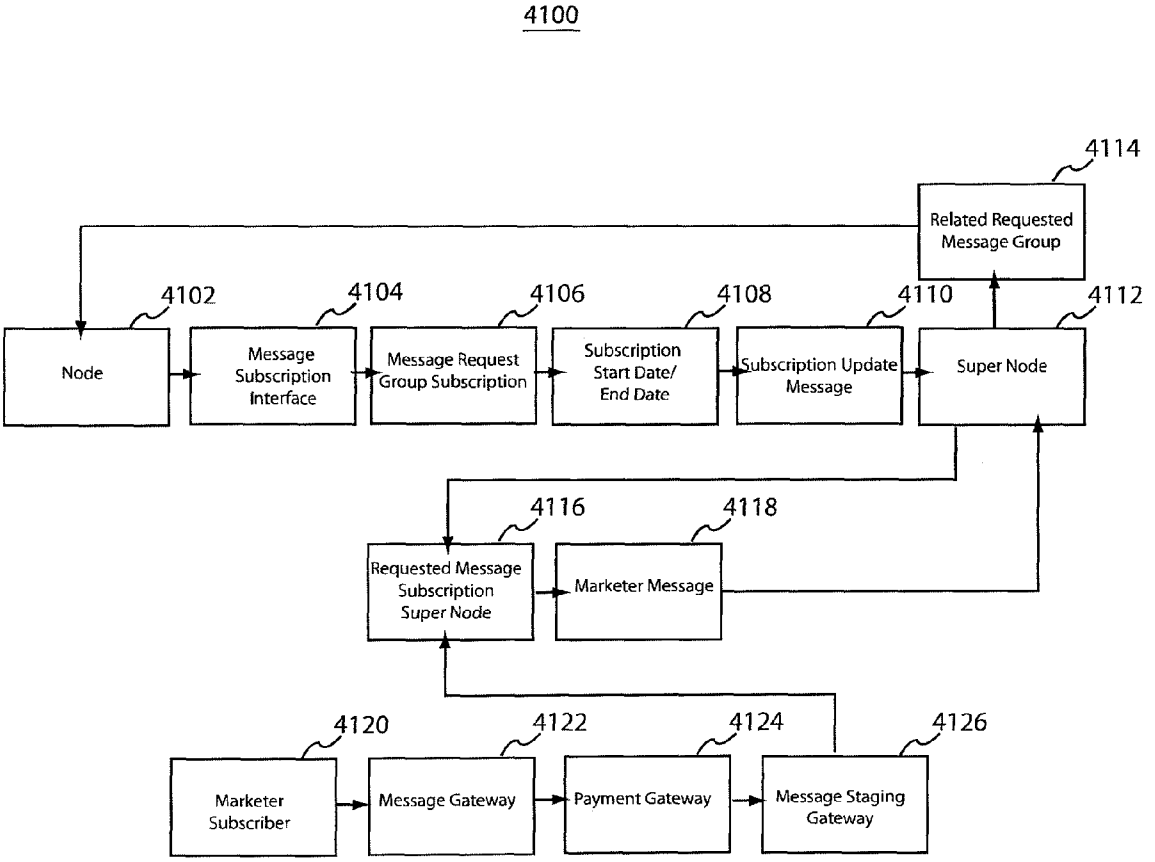

4100
4114
Related Requested Message Group
4102
4104
4106
4108
4110
4112
Node
Message Subscription Interface
Message Request Group Subscription
Subscription Start Date/ End Date
Subscription Update Message
Super Node
4116
4118
Requested Message Subscription Super Node
Marketer Message
4120
4122
4124
4126
Marketer Subscriber
Message Gateway
Payment Gateway
Message Staging Gateway

Figure 41

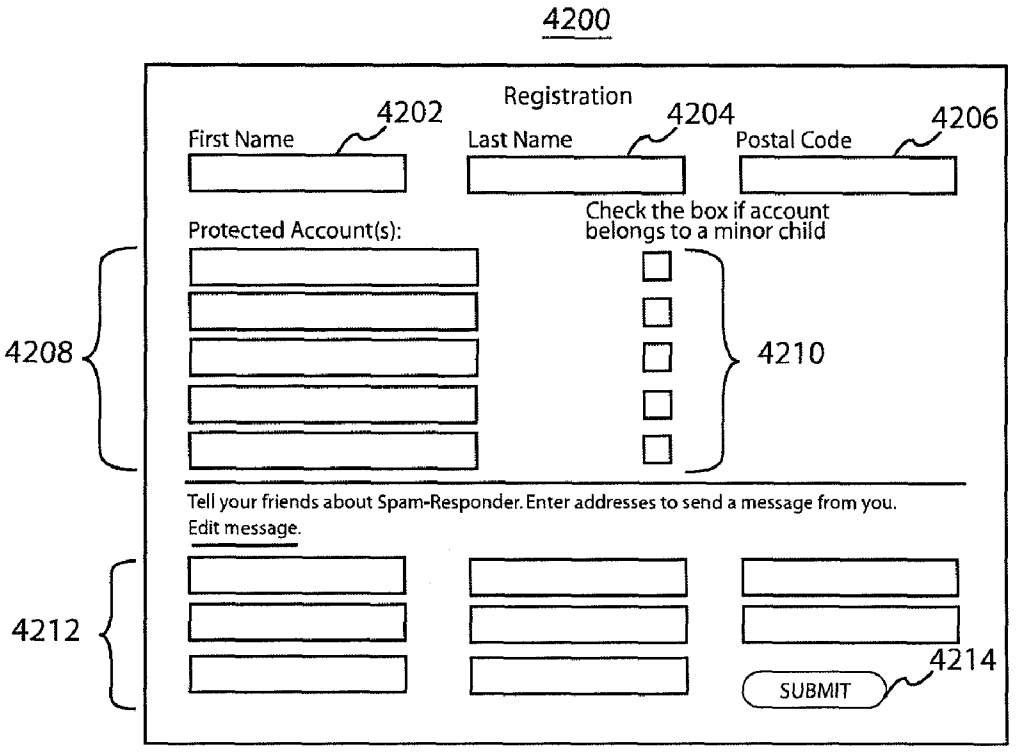


Figure 42

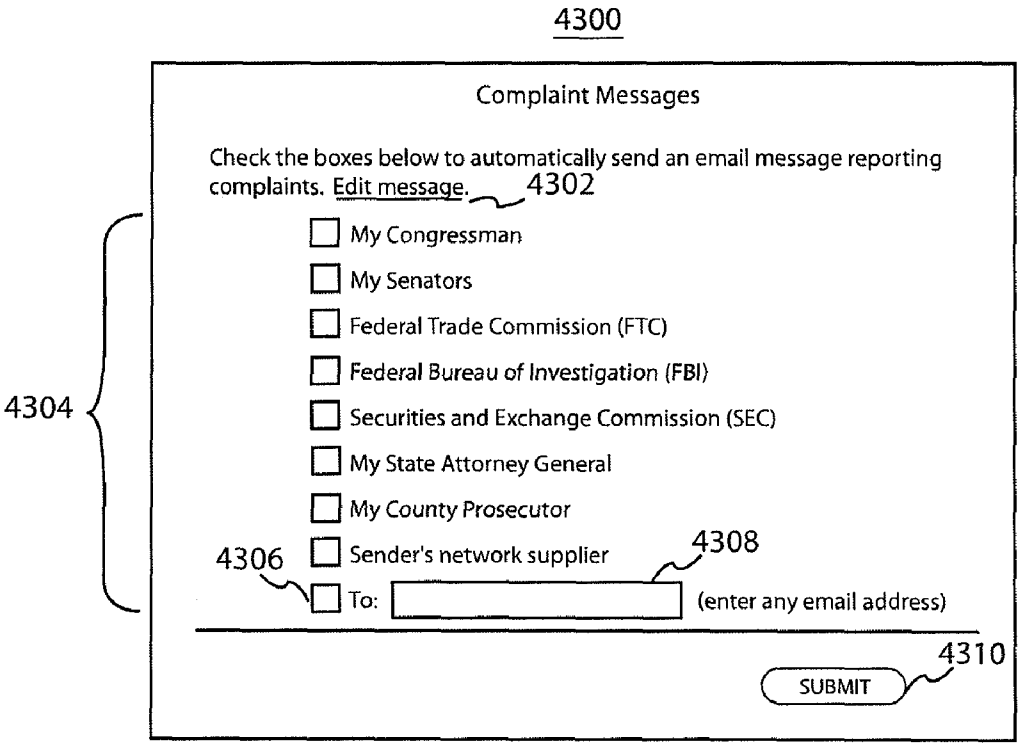


Figure 43

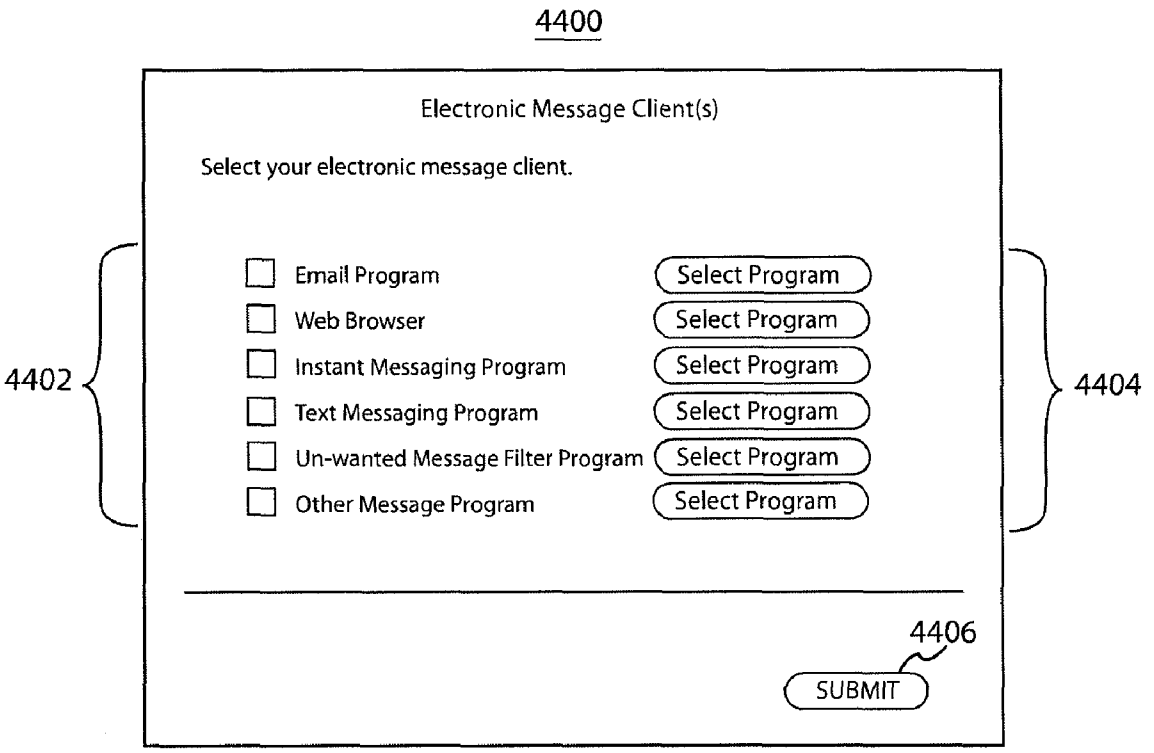


Figure 44

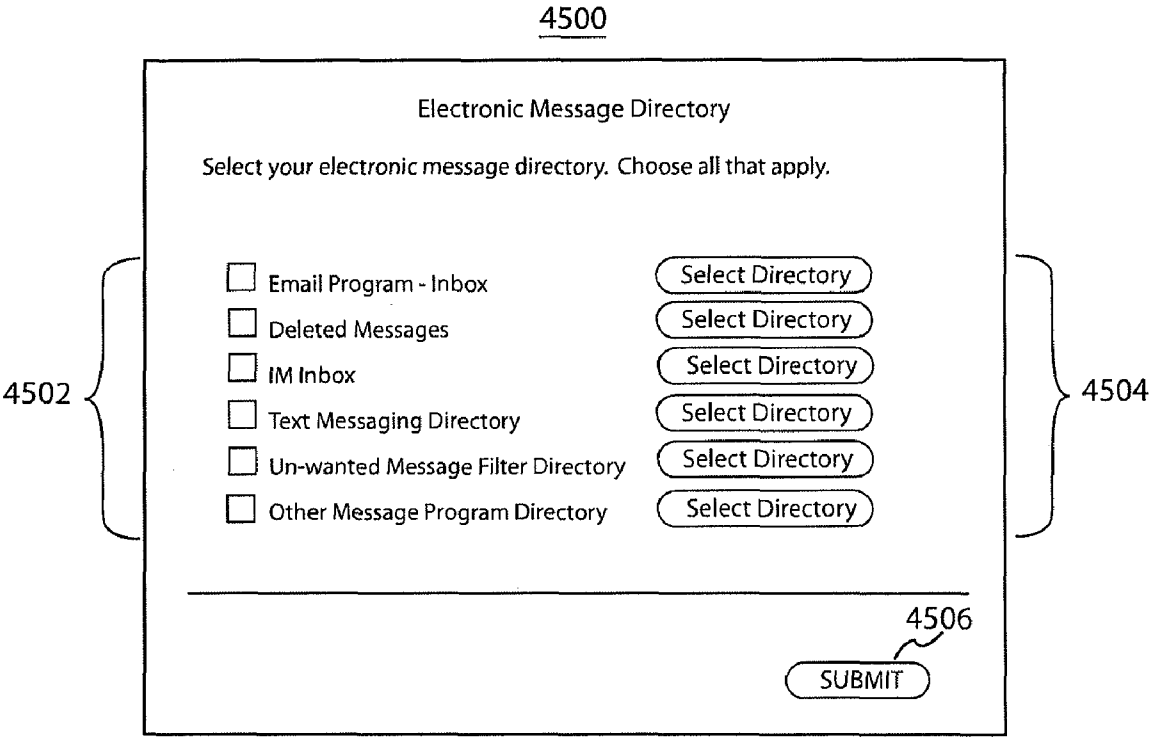


Figure 45

4600

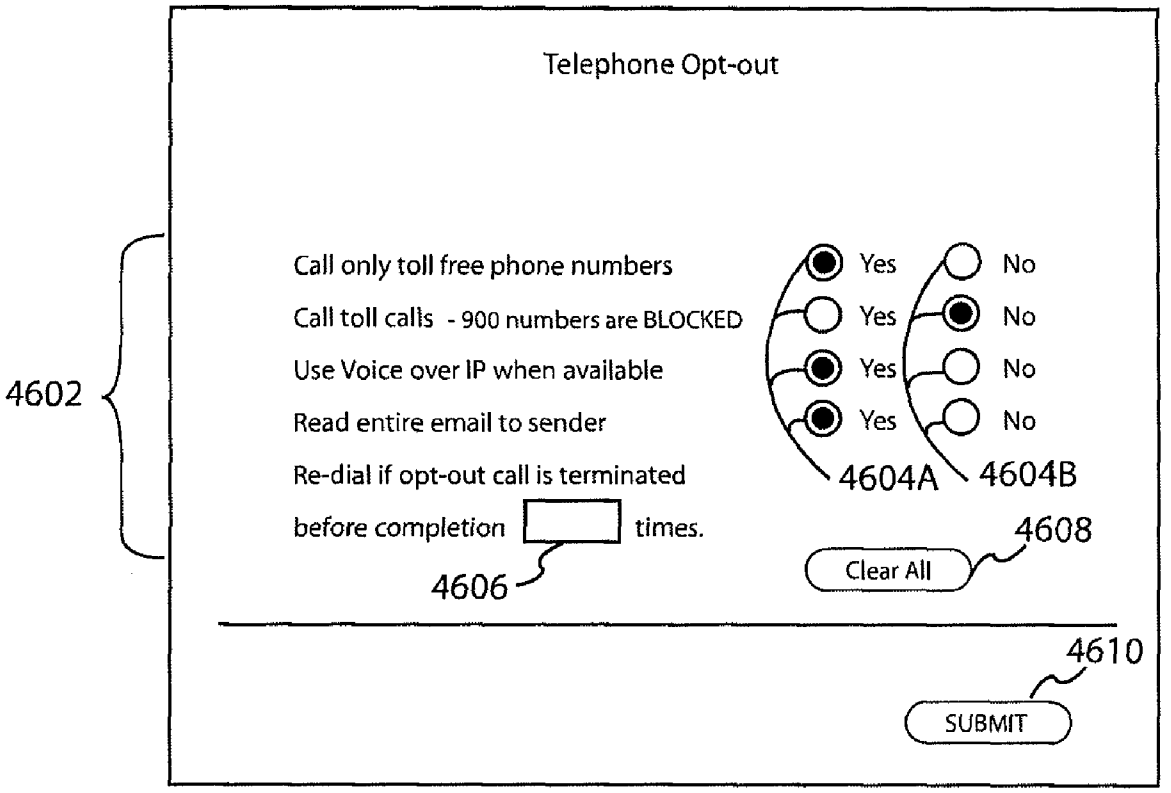


Figure 46

4700

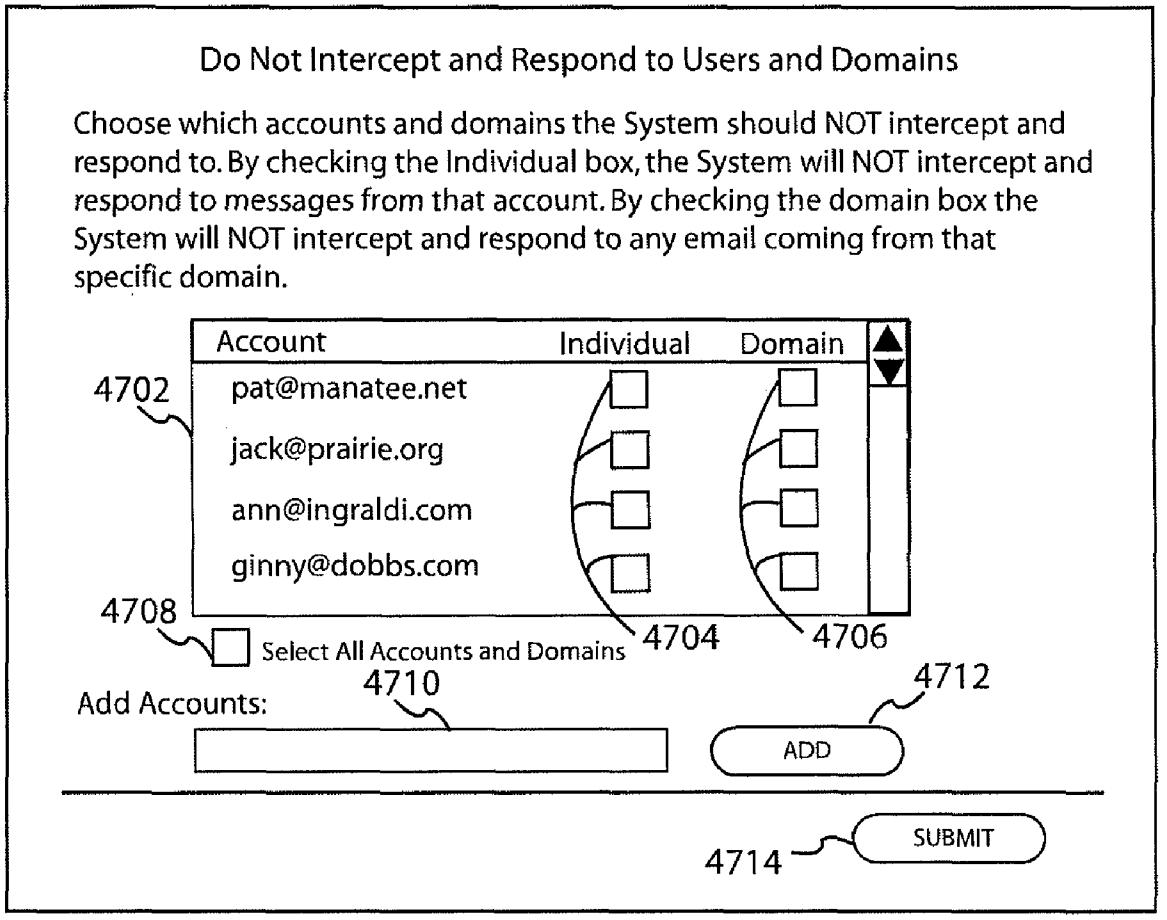


Figure 47

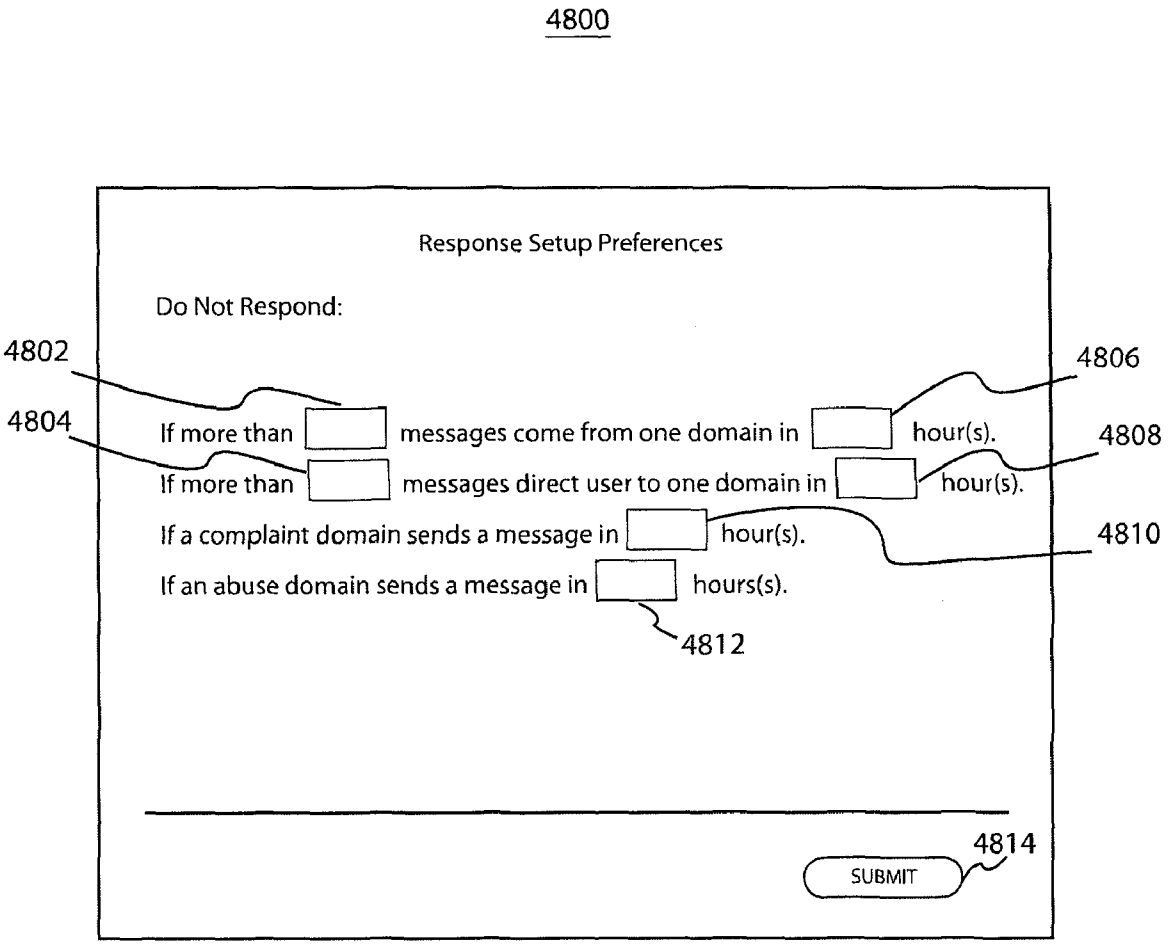

4800
Response Setup Preferences
Do Not Respond:
4802
4804
4806
4808
4810
If more than messages come from one domain in hour(s).
If more than messages direct user to one domain in hour(s).
If a complaint domain sends a message in hour(s).
If an abuse domain sends a message in hours(s).
4812
4814
SUBMIT

Figure 48

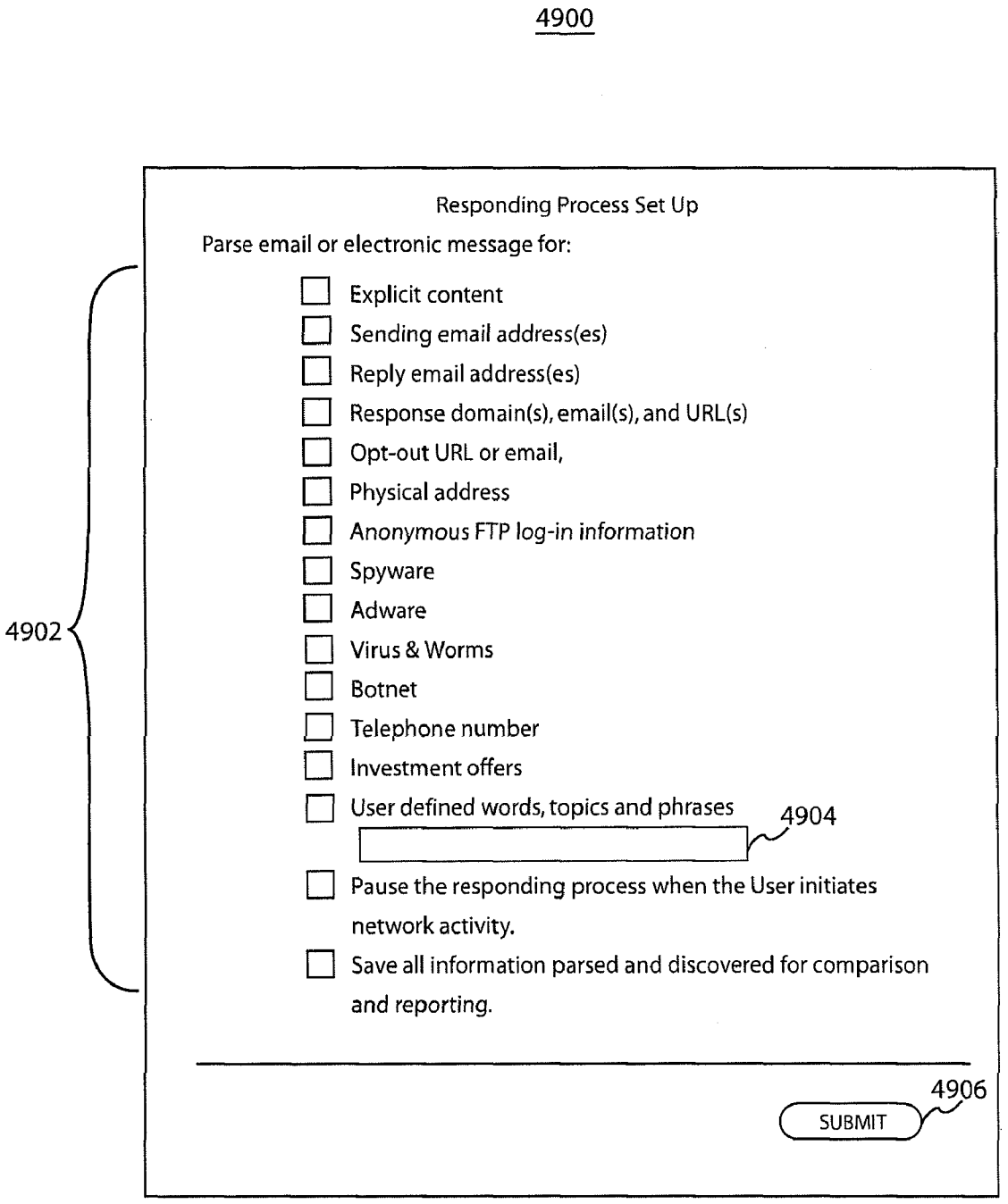

4900
Responding Process Set Up
Parse email or electronic message for:
Explicit content
Sending email address(es)
Reply email address(es)
Response domain(s), email(s), and URL(s)
Opt-out URL or email,
Physical address
Anonymous FTP log-in information
Spyware
Adware
Virus & Worms
Botnet
Telephone number
Investment offers
User defined words, topics and phrases
4902
4904
Pause the responding process when the User initiates network activity.
Save all information parsed and discovered for comparison and reporting.
4906
SUBMIT

Figure 49

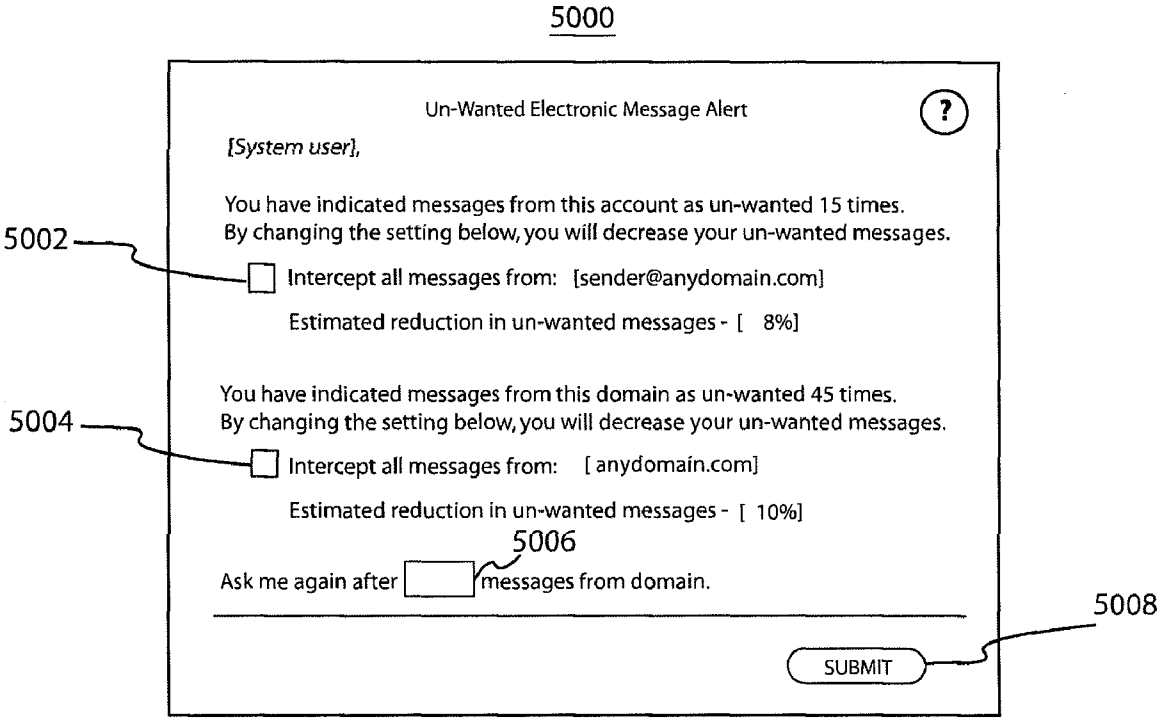


Figure 50

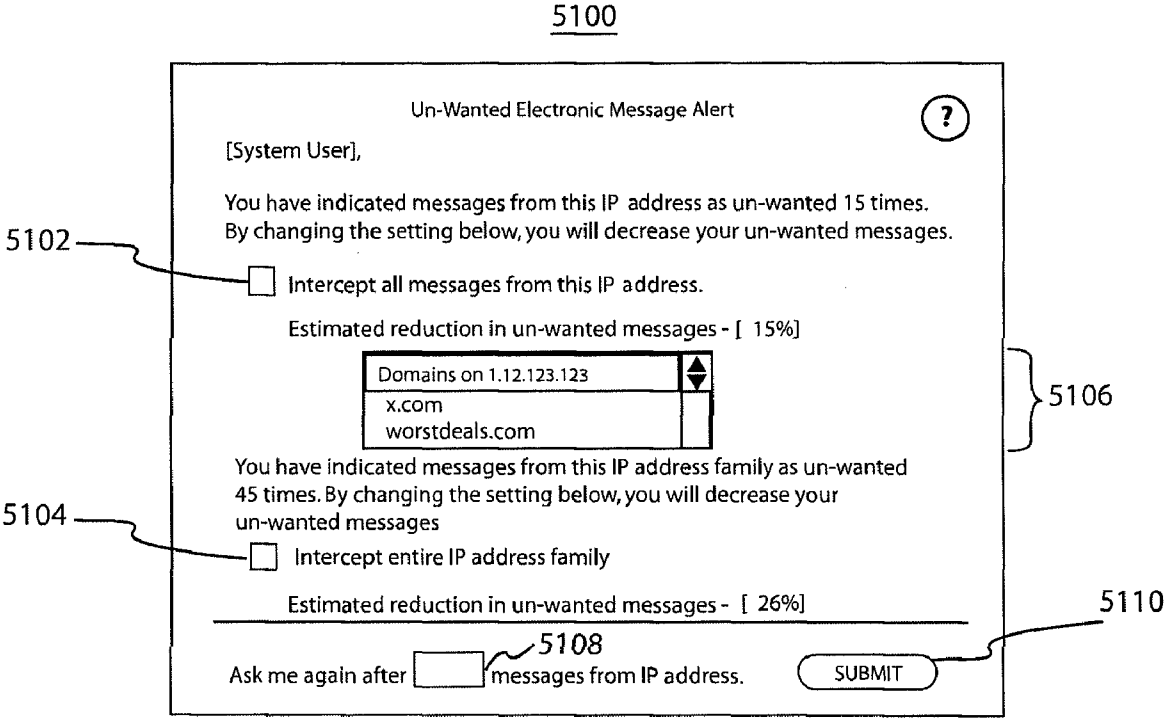


Figure 51

5200

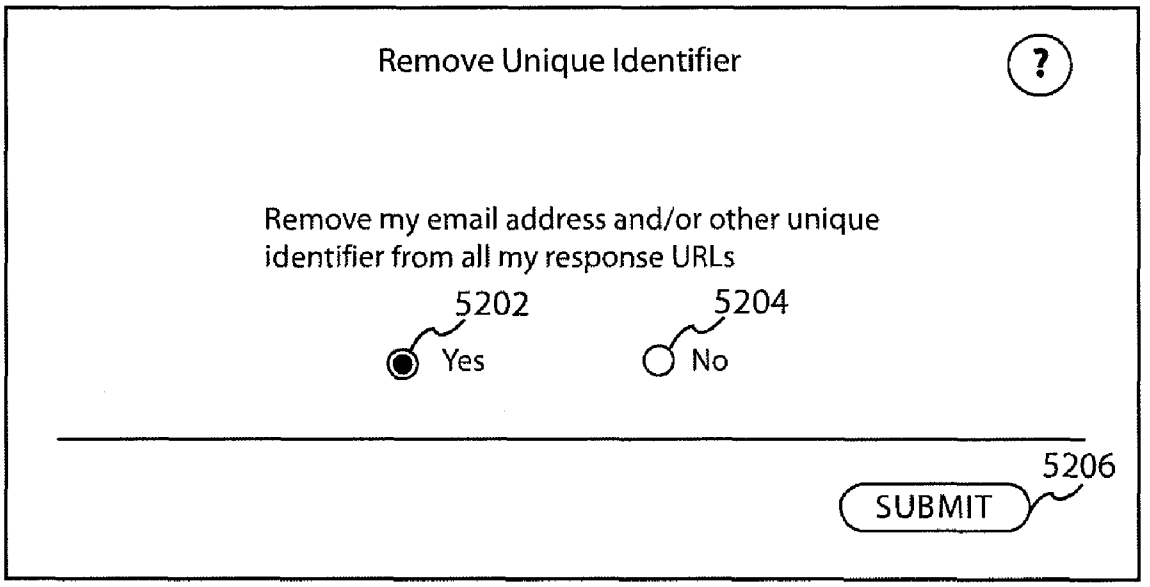


Figure 52

5300

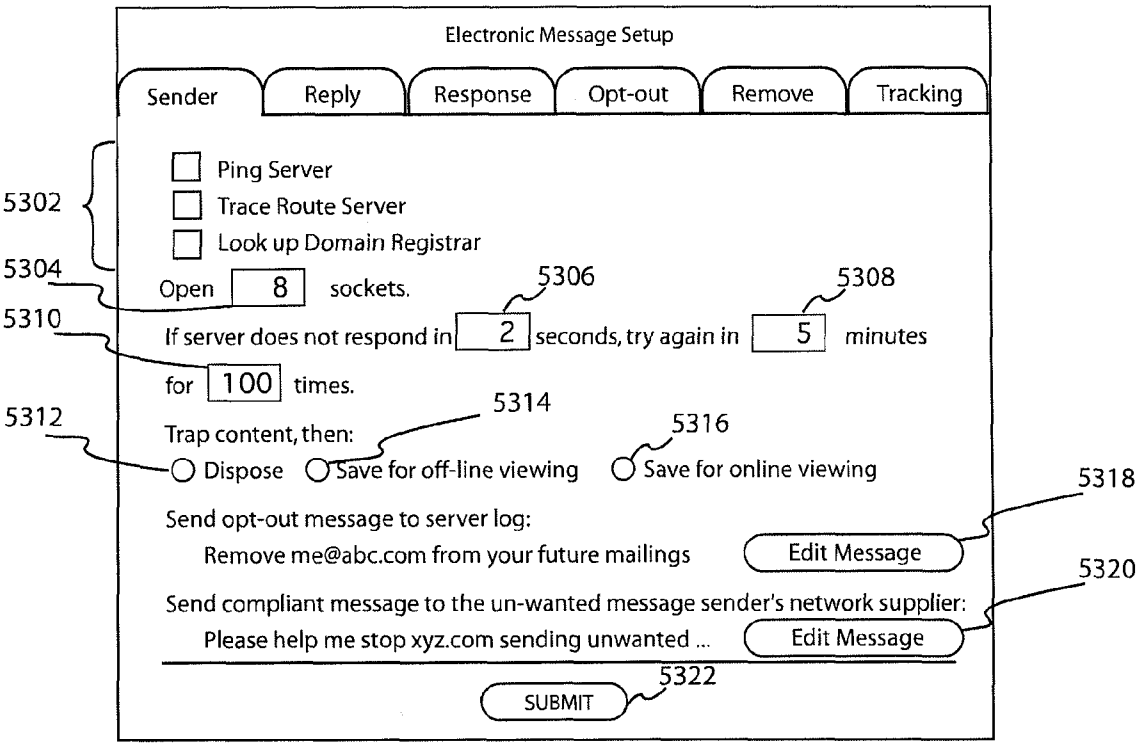


Figure 53

5400

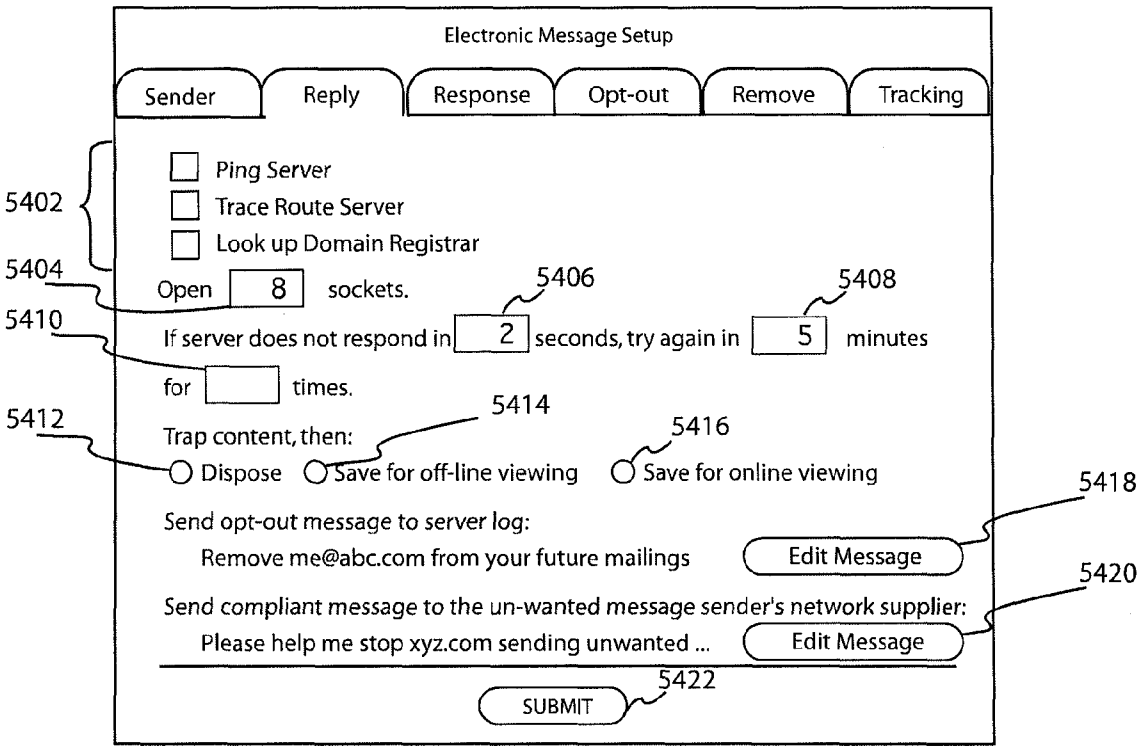


Figure 54

5500

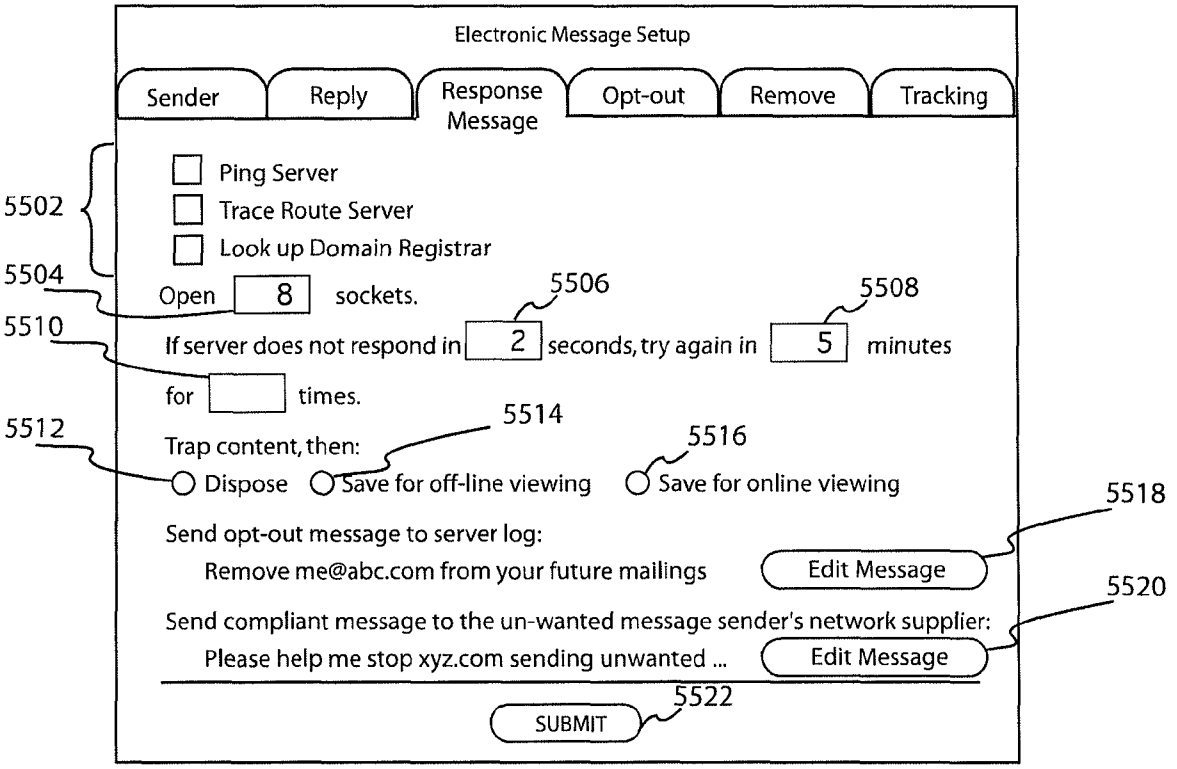


Figure 55

5600

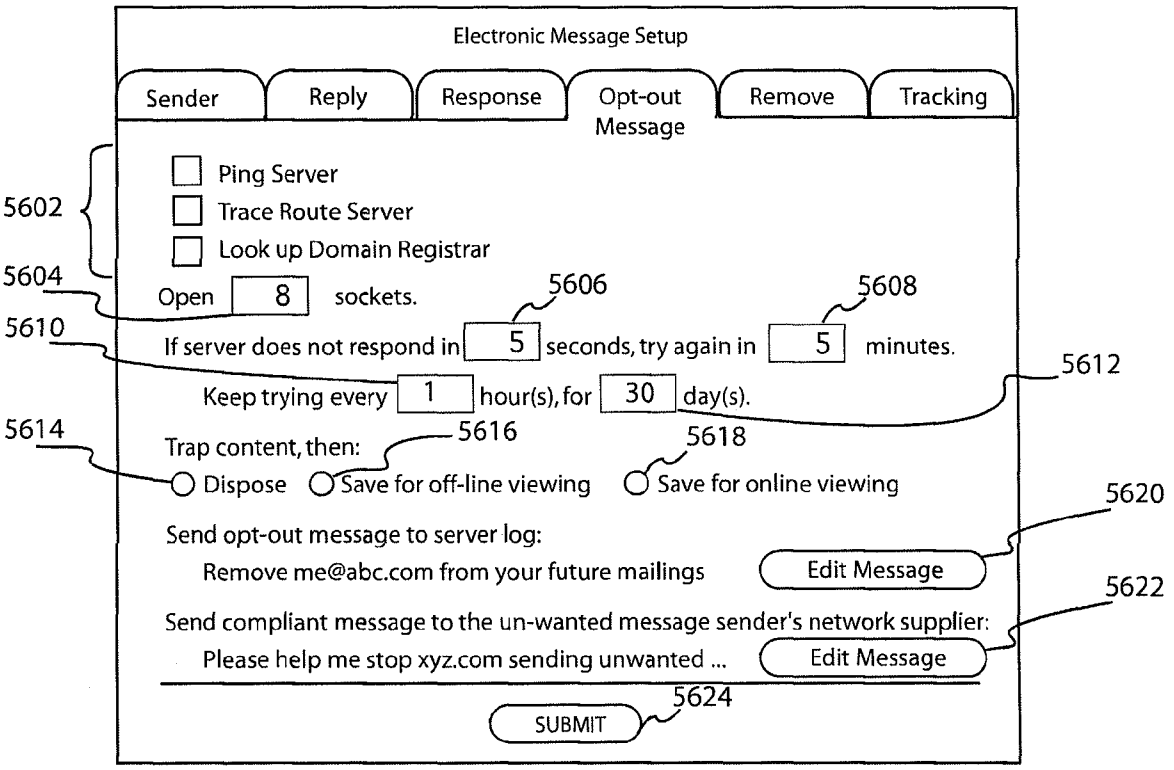


Figure 56

5700

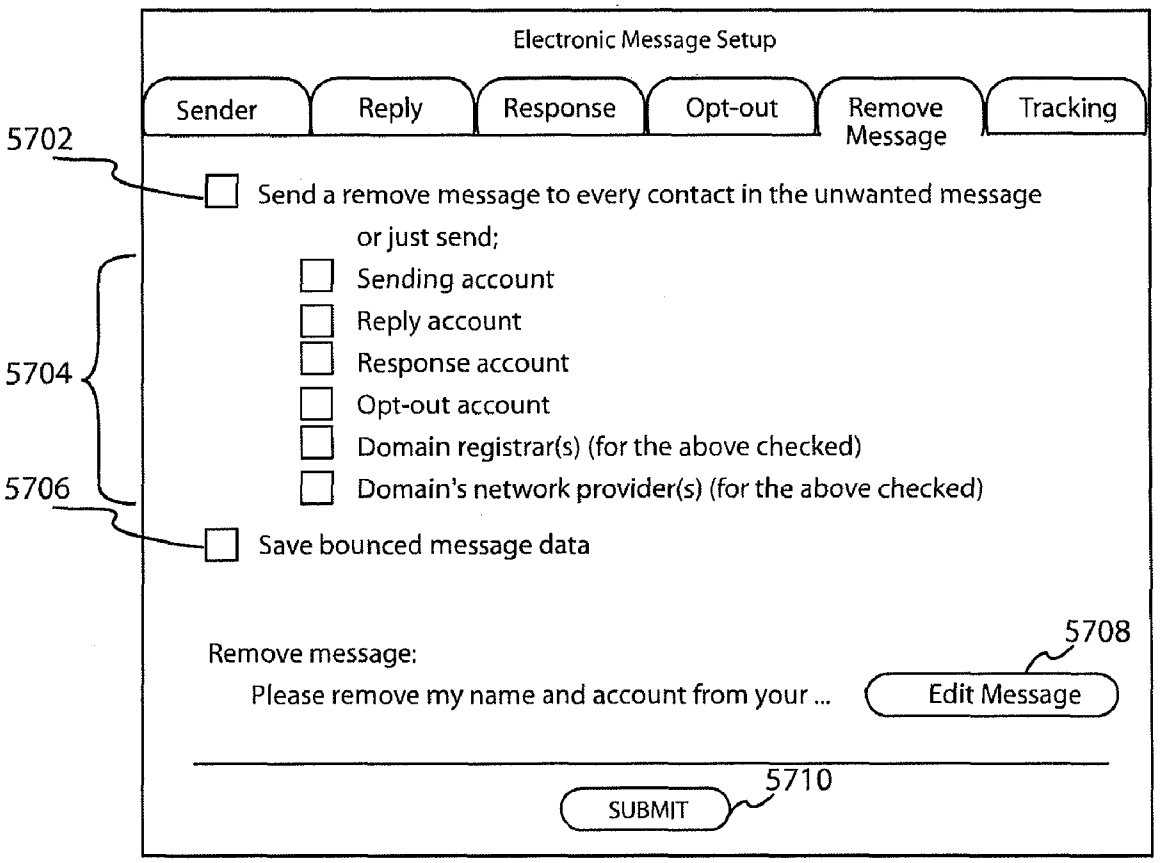


Figure 57

5800

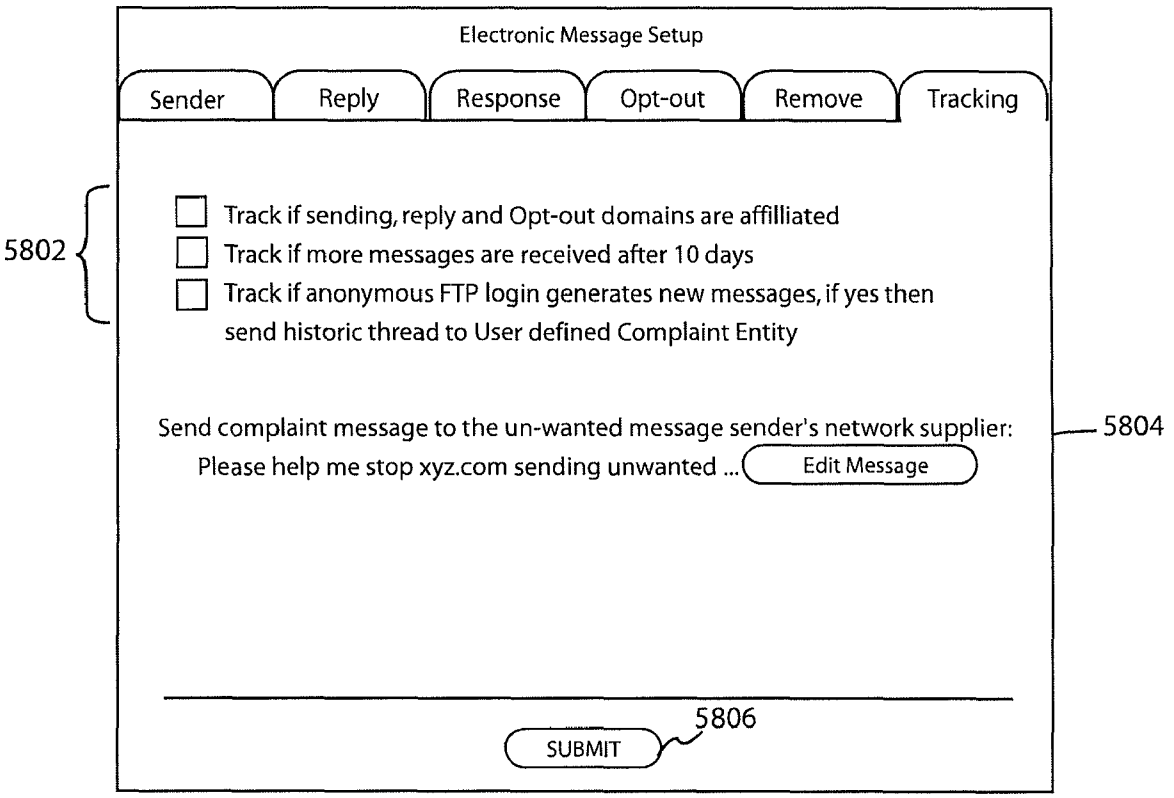


Figure 58

5900

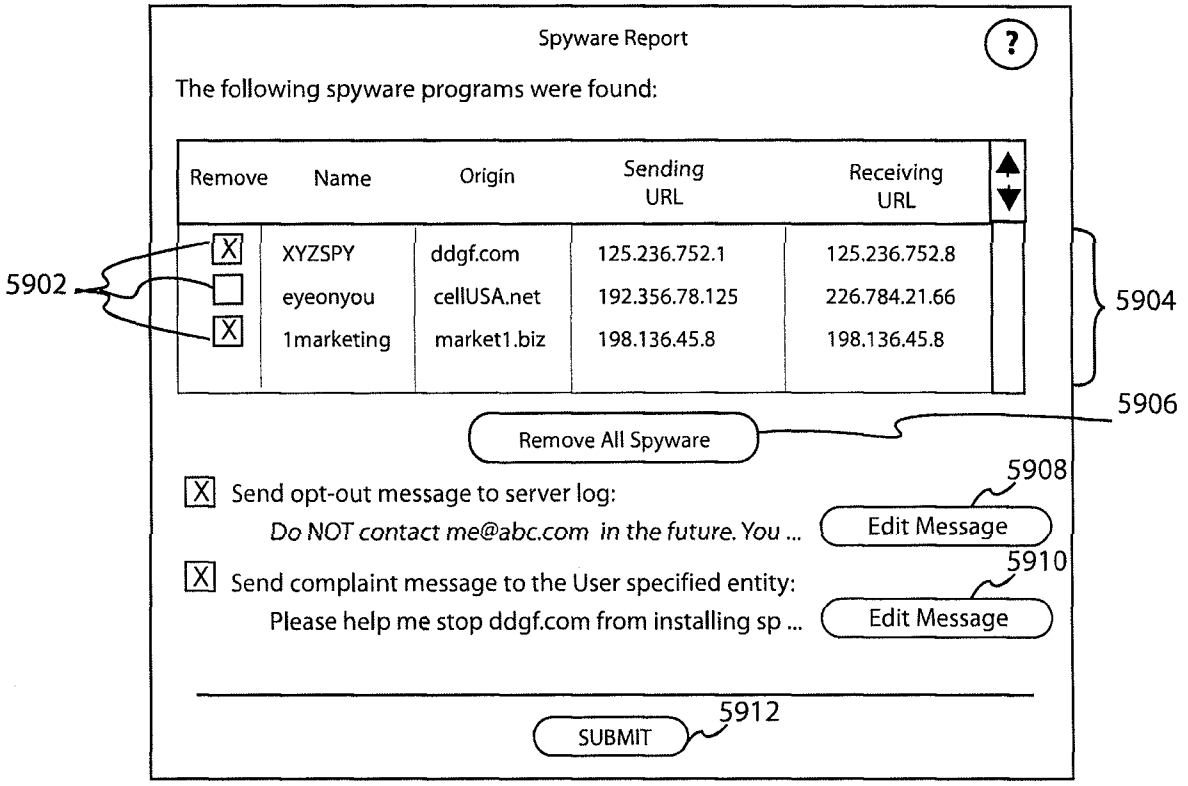


Figure 59

6000

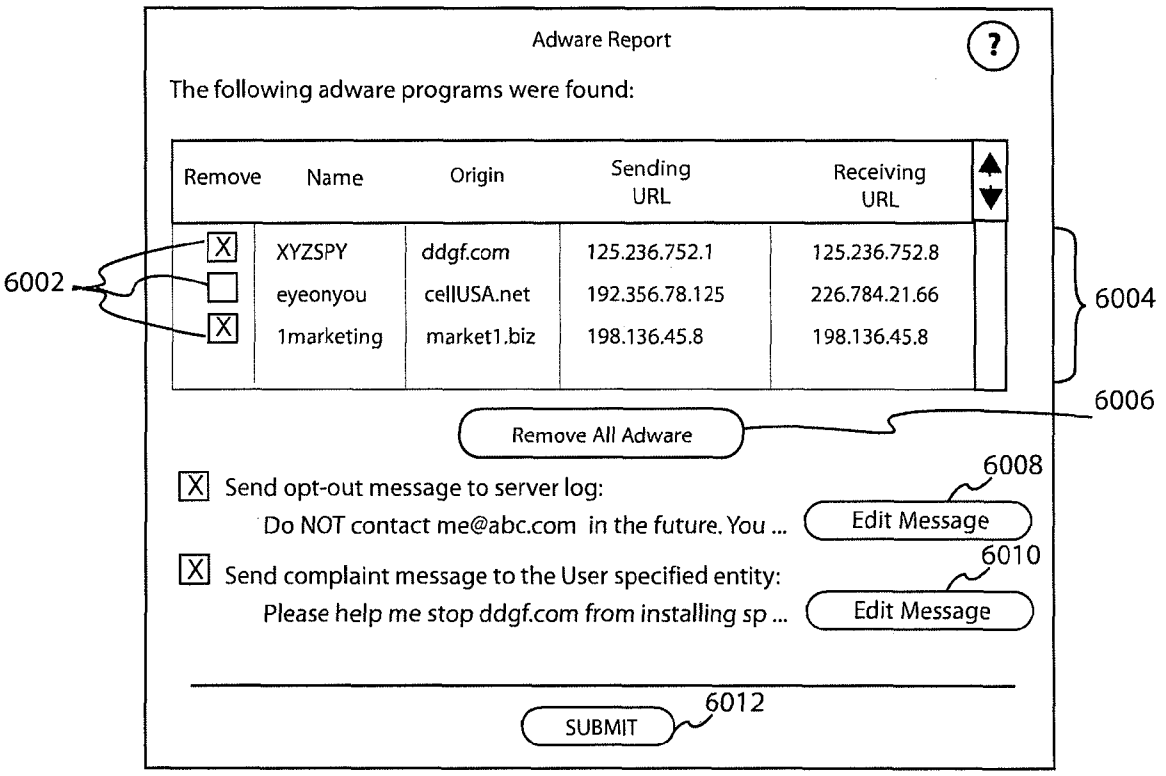


Figure 60

6100

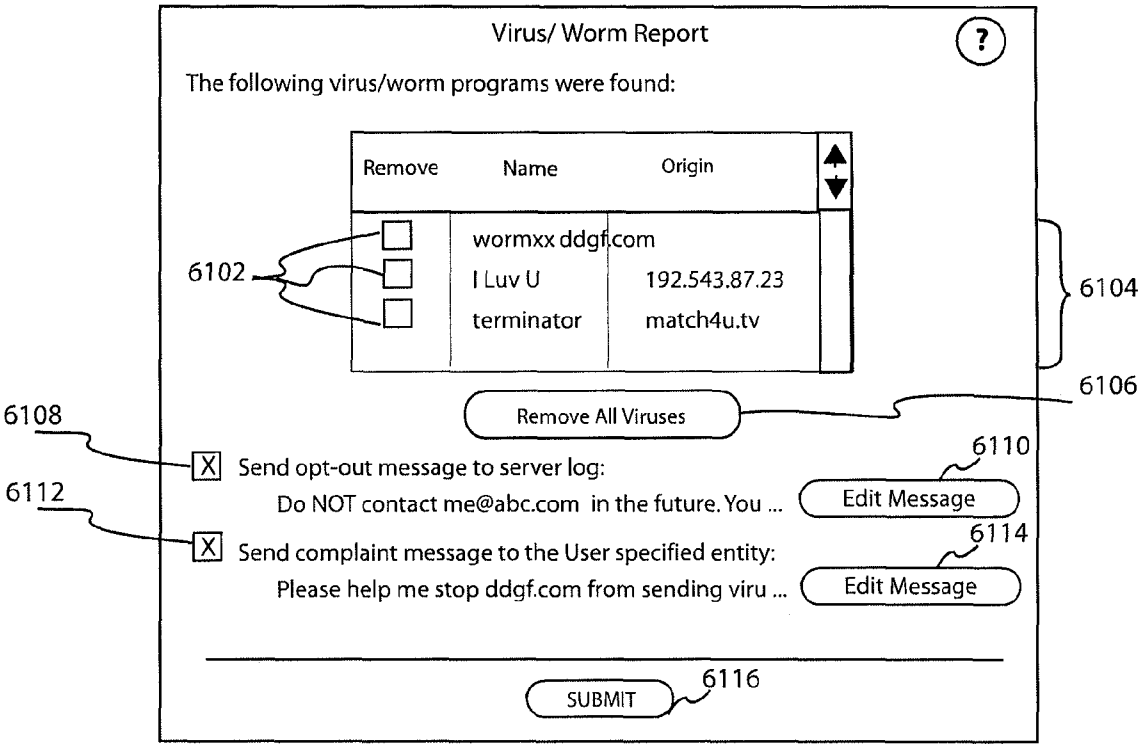


Figure 61

6200

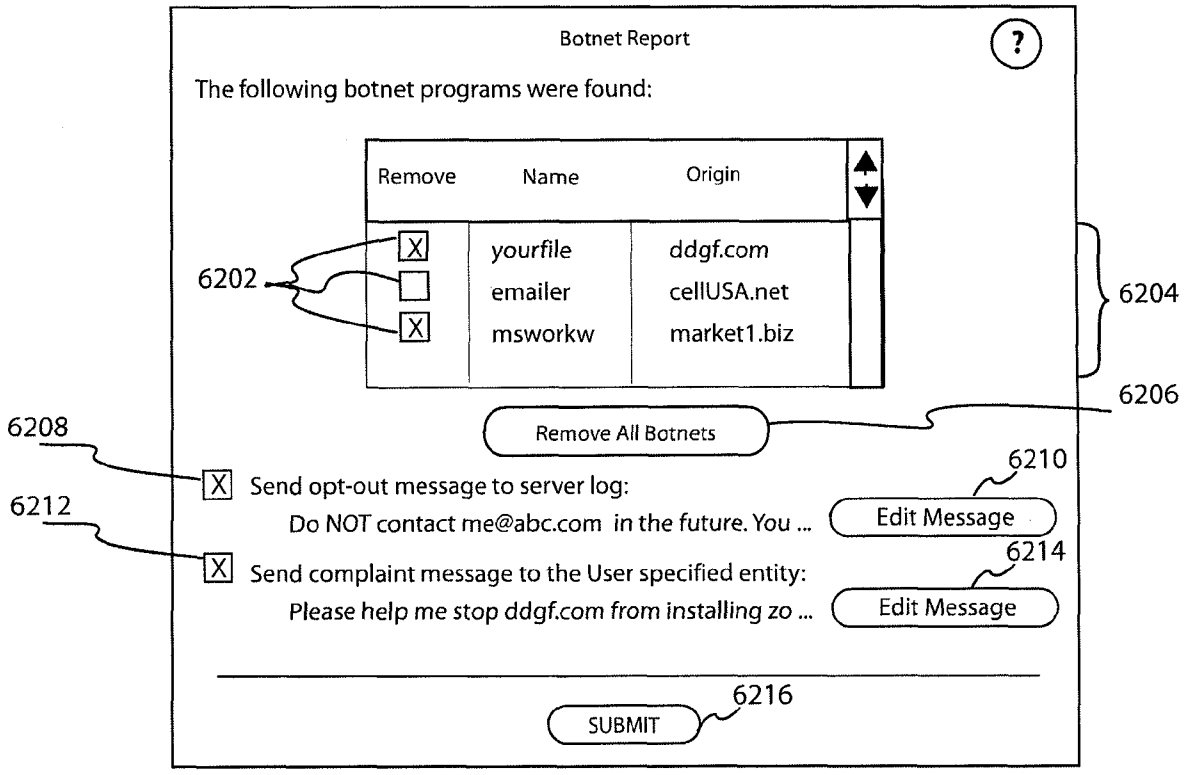


Figure 62

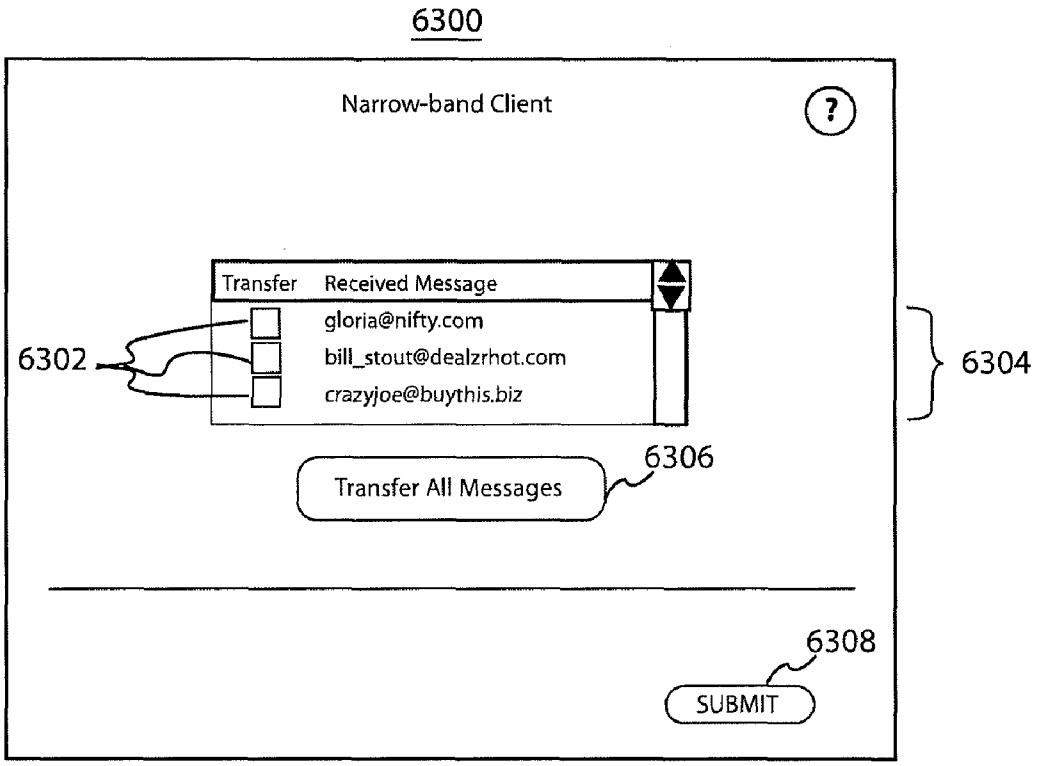


Figure 63

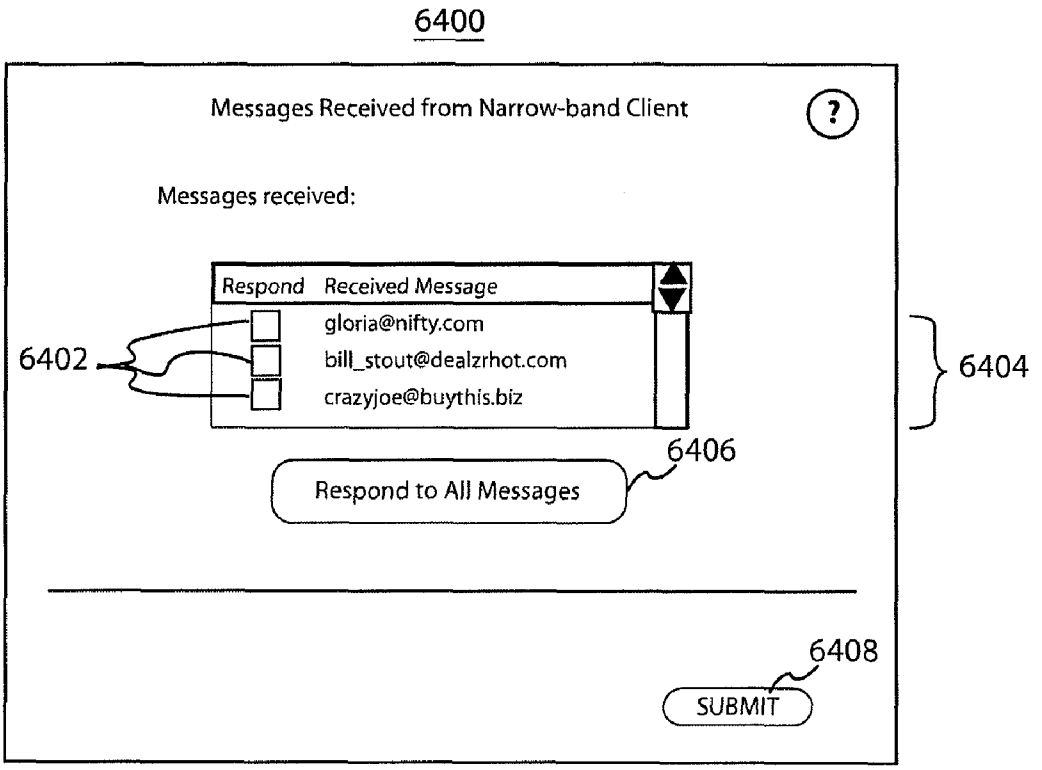


Figure 64

6500

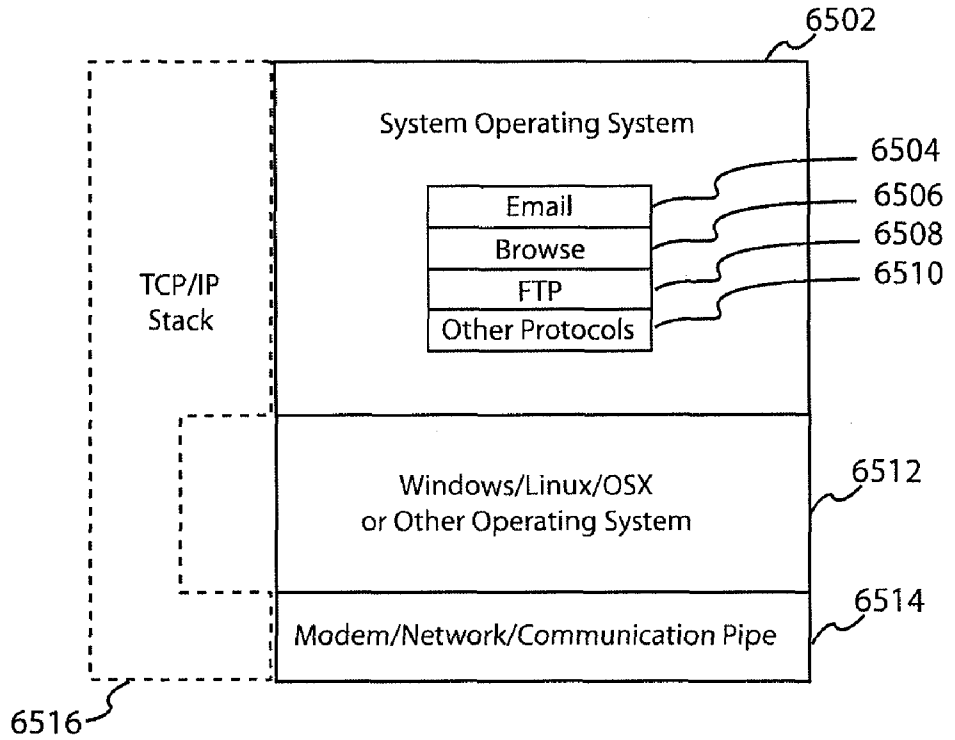


Figure 65

6600

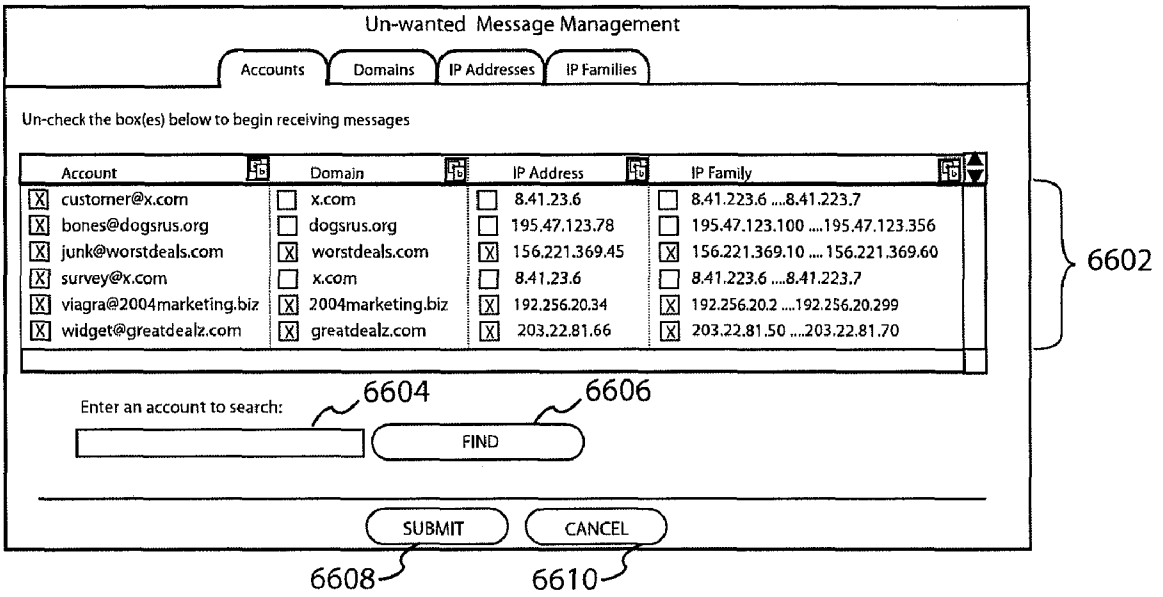


Figure 66

6700

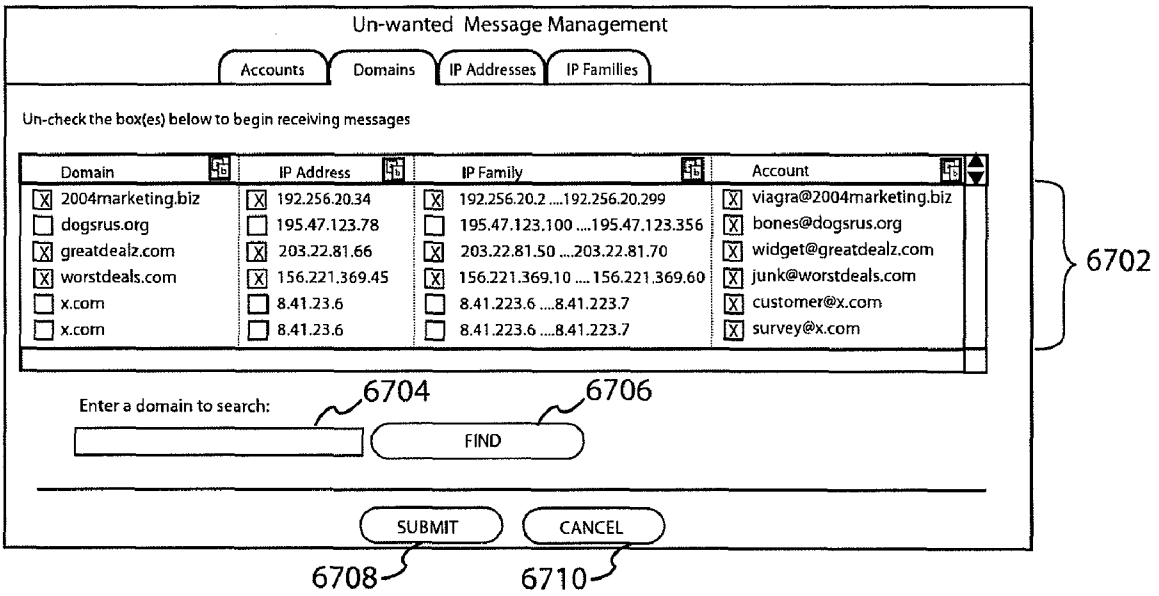


Figure 67

6800

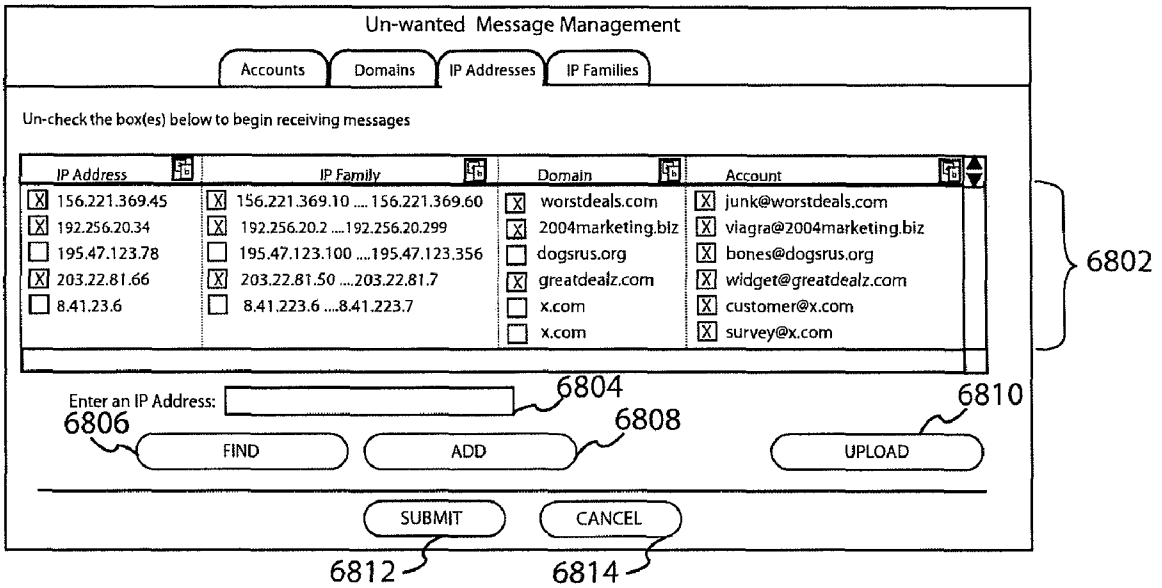


Figure 68

6900

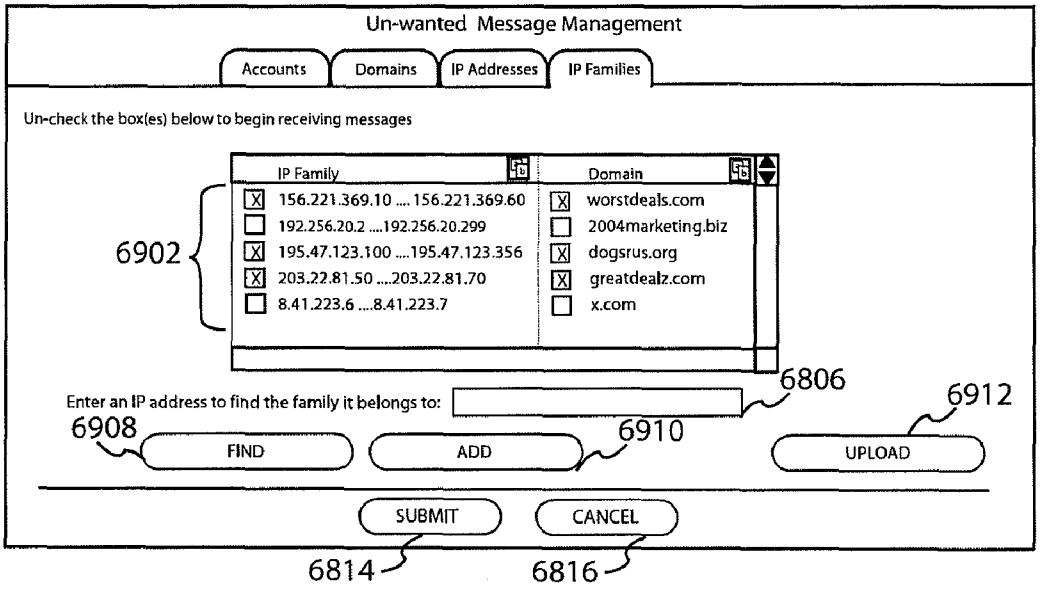


Figure 69

7000

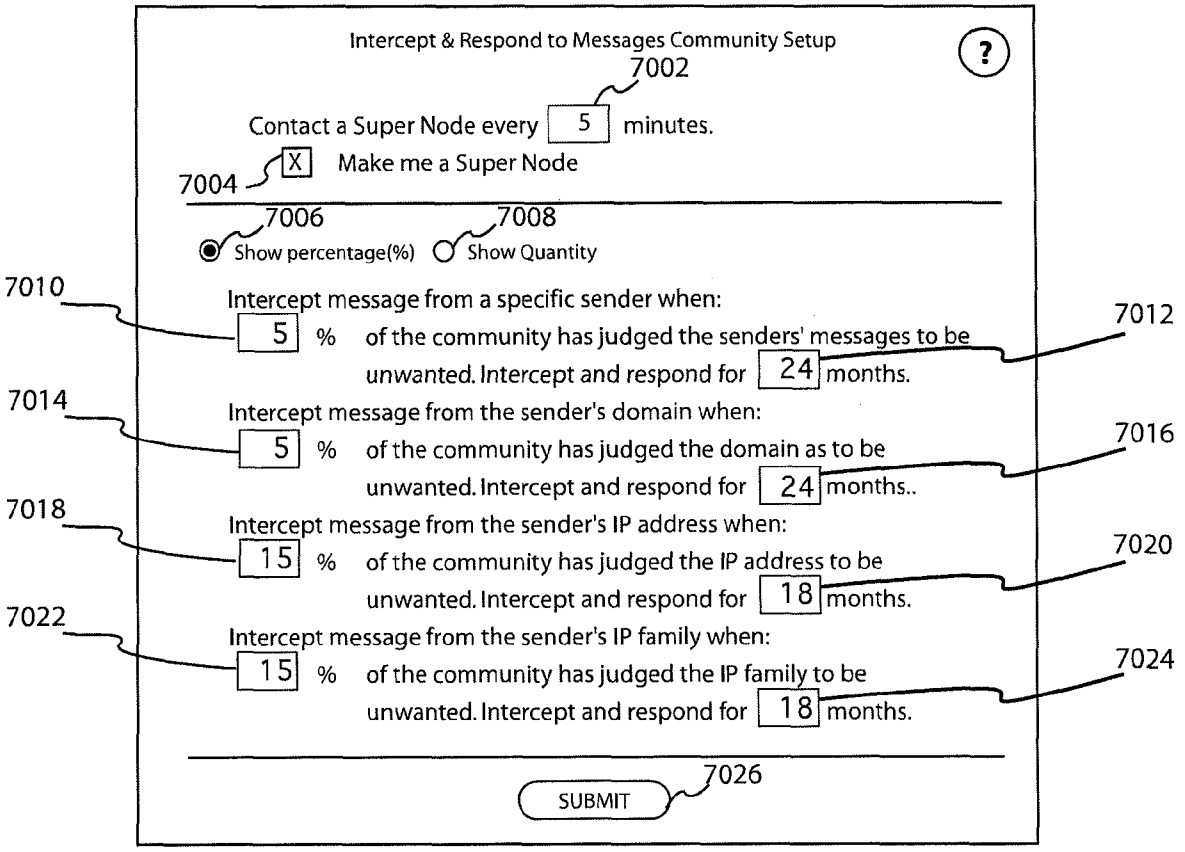


Figure 70

7100

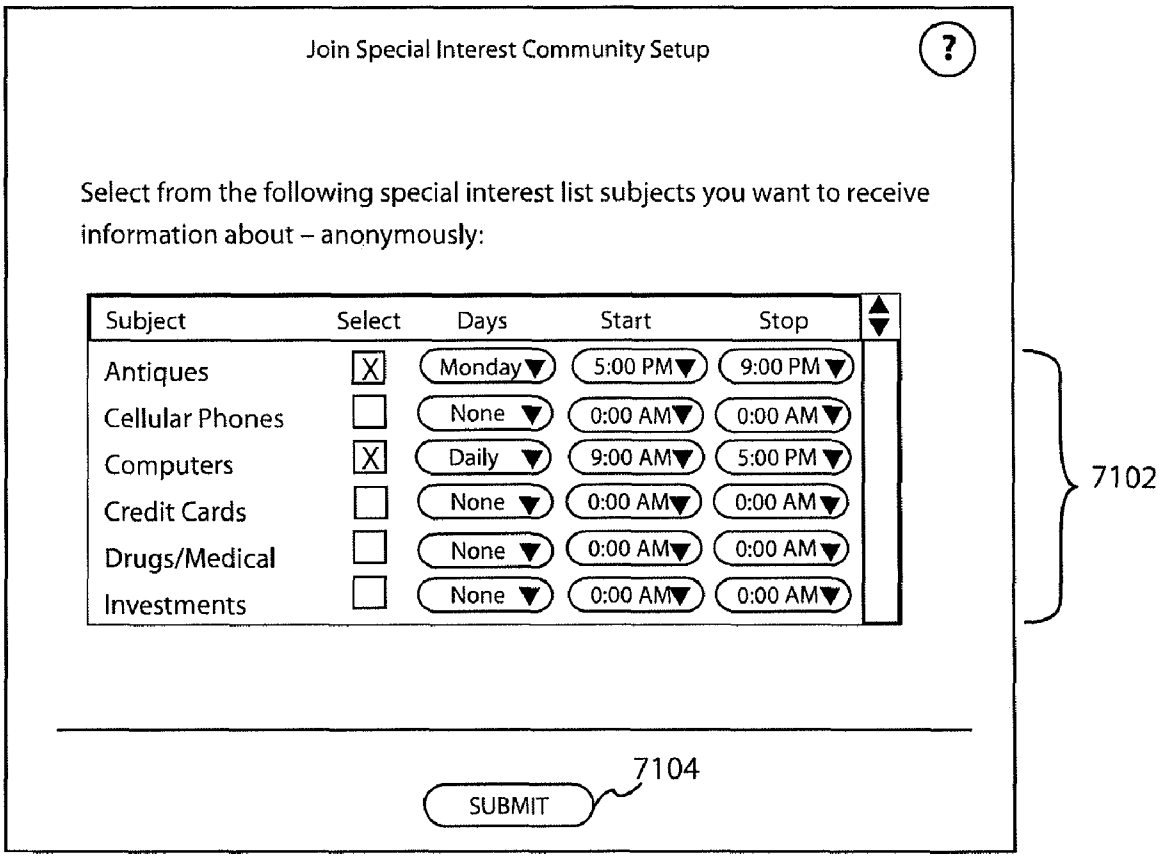


Figure 71

ELECTRONIC MESSAGE RESPONSE AND REMEDIATION SYSTEM AND METHOD

REFERENCE TO RELATED APPLICATION

This application claims the benefit of U.S. Provisional Patent Application Ser. No. 60/634,636, filed Dec. 8, 2004, entitled "Electronic Message Response and Remediation System," the entire disclosure of which is hereby incorporated by reference.

BACKGROUND OF THE INVENTION

The advent and rise of electronic messaging and the Internet has been accompanied by the rise of "spam" or "junk mail", computer viruses, spyware, adware, worms, botnets and other malicious software capable of being delivered by email or other electronic messages, as well as unwanted explicit material, received.

Unsolicited message originators and those who produce malicious code typically attempt to hide their identities when they distribute email or code. Instead of generating messages directly from an easily-traced account at a major Internet provider, they may, for instance, send their mail from a spam-friendly network, using forged headers, and relay the message through intermediate hosts.

It is thus desirable to provide a system and method that identifies, tracks and removes unwanted messages and malicious software, and to identify the network address the malicious software was received from.

Although laws pertaining to unwanted messaging have been enacted, enforcement of such laws is problematic; For example, although an unwanted message originator is supposed to provide an opt-out link for a user to indicate their desire to stop receiving email from a given source, some spammers provide the opt-out in a manner that is not easily usable to a human user.

Therefore, it is also desirable to provide a system and method that writes a message to the sending email domain's web server log or electronic content repository log, and requests that no further messages be sent to the user.

It is also desirable to provide a system and method that writes a message to the reply email domain's web server log or electronic content repository log and requests that no further messages be sent to the user.

It is also desirable to provide a system and method that writes a message to the response web site(s)' web server log or electronic content repository(s)' log and requests that no further messages be sent to the user.

SUMMARY OF THE INVENTION

One aspect of the present invention provides a method relating to responding to an incoming electronic message. The method includes determining whether the incoming electronic message is relevant or irrelevant to a user, and, if the incoming electronic message is irrelevant to the user, parsing the incoming electronic message for message origination information and replying to the message based on the message origination information.

Another aspect of the invention includes using a user profile containing information regarding relevant and irrelevant messages in determining whether the incoming electronic message is relevant or irrelevant.

In a further aspect of the invention, the message origination information parsed includes one or more of: a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP login for message image, physical address and telephone numbers.

In an aspect of the invention, the determining and parsing steps are performed as the incoming electronic messages are received.

In another aspect of the invention, the determining and parsing steps are performed at a time other than when the incoming electronic message is received.

Another aspect of the invention includes the method described above, and further includes sending one or more electronic messages to a relevant third party entity in accordance with a user configuration, the one or more electronic messages relating to the incoming electronic message.

In another aspect of the invention, the relevant third party the relevant third party entity is a government entity.

Another aspect of the invention includes the method described above, and further includes identifying, tracking variants, and removing any software that records a user's keystrokes, displays banners or other computer advertising, or reports the user's behavior to a third party.

Another aspect of the invention includes the method described above, and further includes identifying the network address the software was received from and any network address the user information is being sent to.

In an aspect of the invention, the above described method further includes identifying, tracking and removing software that enables a user's computer to be controlled remotely.

In another aspect of the present invention, the above described method further includes measuring and capturing sender suggested content for the user to review at a time convenient to the user.

Another aspect of the invention includes measuring the time it takes for an electronic packet to be sent and subsequently received by the user.

An embodiment of the present invention includes tracing the route to a sender of the incoming electronic message. In an aspect of the invention, the sending web server is contacted using the message origination information.

In a preferred embodiment of the invention, if the sending web server is unable to respond, the method described above further includes continuing to attempt contacting the sending web server after a time interval defined by the user.

In another aspect of the present invention, the above described method further includes writing a message to a sending email domain's web server log requesting that no further messages be sent to the user and tracking a sender's compliance with the request.

Another aspect of the invention includes the method described above, and additionally includes sharing information regarding irrelevant messages with other users by the user. In a further aspect of the invention, the sharing is performed using a peer-to-peer file system and grid architecture.

In another aspect of the present invention, the above described method further includes the sharing by the user of information regarding the irrelevant messages with one or more super nodes on a network.

Another aspect of the present invention provides a message response system. The message response system includes an electronic message receiver node, which includes a processor operably connected to a computer memory and a network communication device. The processor and memory are configured to operate the network communication device and to receive at least one message over the network communication device. The network communication device is also in communication with a network. The electronic message receiver

node is associated with a user. The processor and memory are further configured to perform the steps of determining whether the at least one message is relevant or irrelevant to the user, and if the message is irrelevant, parsing the at least one message for message origination information.

In a further aspect of the present invention, the processor and memory perform the step of determining whether the at least one message is relevant or irrelevant to the user using a user profile containing information regarding relevant and irrelevant messages.

Another aspect of the invention includes the message response system as described above, in which the processor and memory are further configured to perform the step of contacting a sending web server using the message origination information.

In another aspect of the invention, the processor and memory are further configured to continue to attempt contacting the sending web server after a time interval defined by the user if the sending web server is unable to respond.

Another aspect of the present invention provides a message response system as described above, in which the processor and memory are further configured to write a message to a sending email domain's web server log requesting that no further messages be sent to the node, and track a sender's compliance with the request.

In another aspect of the invention, the processor and memory are further configured to share information regarding irrelevant messages with other nodes or super nodes on the network. In one embodiment, the sharing is performed using a peer-to-peer file system and grid architecture.

Another aspect of the present invention provides a marketing subscription system, including a marketing subscriber having special interest marketing messages, a user node including a user-selected set of special interest messages a user would like to anonymously receive, and a requested message subscription super node in communication with the user node and the marketing subscriber. The super node is configured to receive the user-selected set of special interest messages the user would like to anonymously receive, and accept special interest marketing messages matching the user-selected set from the marketing subscriber, and anonymously pass the matching messages to the user node.

Another aspect of the invention provides the marketing subscription system described above, and further includes a payment gateway. The payment gateway is in communication with the marketing subscriber and the message subscription super node, and is configured to block or prevent the acceptance of the matching messages by the message subscription super node if the marketing subscriber has not paid a subscription fee. If the marketing subscriber has paid the subscription fee, the payment gateway then allows the acceptance of the matching messages by the message subscription super node.

Another aspect of the present invention provides message response software. The message response software includes user node software. The user node software is operable to receive an incoming electronic message, determine whether the incoming electronic message is relevant or irrelevant to a user, and parse the incoming electronic message for message origination information if the incoming electronic message is irrelevant to the user.

In another aspect of the invention, the user node software is further operable to contact a sending web server using the message origination information, and, if the sending web server is unable to respond, continue to attempt contact the sending web server after a time interval defined by the user.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a flowchart of an exemplary process for parsing an electronic contact(s) or address book in accordance with an embodiment of the present invention;

FIG. **2** is a flowchart of an exemplary process for extracting telephone number(s) from messages and responding to the messages at the telephone number(s) in accordance with an embodiment of the present invention;

FIG. **3** is a flowchart of an exemplary process for an anti-looping function in accordance with an embodiment of the present invention;

FIG. **4** is a flowchart of an exemplary embodiment for parsing email or electronic messages in accordance with an embodiment of the present invention;

FIG. **5** is a flowchart of an exemplary embodiment for handling unwanted message sender information in accordance with an embodiment of the present invention;

FIG. **6** is a flowchart of an exemplary embodiment for removing the user email or address from any response URL (s) or unique identifiers in accordance with an embodiment of the present invention;

FIG. **7** is a flowchart of an exemplary embodiment for sending a copy of the message and a complaint to appropriate authorities in the event of explicit or investment message content, in accordance with an embodiment of the present invention;

FIG. **8** is a flowchart of an exemplary embodiment for automatic user response(s) to sender electronic or email messages, in accordance with an embodiment of the present invention;

FIG. **9** is a flowchart of an exemplary embodiment for automatic user response(s) to reply electronic message addresses in accordance with an embodiment of the present invention;

FIG. **10** is a flowchart of an exemplary embodiment for automatic user response to response links and addresses in accordance with an embodiment of the present invention;

FIG. **11** is a flowchart of an exemplary embodiment for automatic user response to opt-out links and addresses in accordance with an embodiment of the present invention;

FIG. **12** is a flowchart of an exemplary embodiment for automatic user response to remove links and addresses in accordance with an embodiment of the present invention;

FIG. **13** is a flowchart of an exemplary embodiment for message tracking in accordance with an embodiment of the present invention;

FIG. **14** is a flowchart of an exemplary embodiment for responding to spyware in accordance with an embodiment of the present invention;

FIG. **15** is a flowchart of an exemplary embodiment for responding to adware in accordance with an embodiment of the present invention;

FIG. **16** is a flowchart of an exemplary embodiment for responding to viruses and worms in accordance with an embodiment of the present invention;

FIG. **17** is a flowchart of an exemplary embodiment for responding to botnets in accordance with an embodiment of the present invention;

FIG. **18** is a flowchart of an exemplary embodiment for personal digital assistants ("PDAs") and cellular telephones in accordance with an embodiment of the present invention;

FIG. **19** is a flowchart of an exemplary embodiment for querying DNS servers for reverse lookup of messages hosted in accordance with an embodiment of the present invention;

FIG. **20** is a flowchart of an exemplary embodiment for use of super node servers in accordance with an embodiment of the present invention;

FIG. **21** is a flowchart of an exemplary embodiment for report generation and forwarding of data to a super node in accordance with an embodiment of the present invention;

FIG. **22** is a flowchart of an exemplary embodiment for updating software in accordance with an embodiment of the present invention;

FIG. **23** is a flowchart of an exemplary embodiment for cloning an individual system node in accordance with an embodiment of the present invention;

FIG. **24** is a flowchart of an exemplary embodiment for uninstalling system files in accordance with an embodiment of the present invention;

FIG. **25** is a flowchart of an exemplary embodiment for an opt-out data extraction tool in accordance with an embodiment of the present invention;

FIG. **26** is a flowchart of an exemplary embodiment for pattern recognition checking in accordance with an embodiment of the present invention;

FIG. **27** is a flowchart of an exemplary embodiment for postal code look-up functionality in accordance with an embodiment of the present invention;

FIG. **28** is a flowchart of an exemplary embodiment for unwanted message user preference management in accordance with an embodiment of the present invention;

FIG. **29** is a flowchart of an exemplary embodiment for grid architecture and peer-to-peer node management in accordance with an embodiment of the present invention;

FIG. **30** is a schematic representation of a node and a super node in accordance with an embodiment of the present invention;

FIG. **31** is a flowchart of an exemplary embodiment for setting message intercept thresholds in accordance with an embodiment of the present invention;

FIG. **32** is a flowchart of an exemplary embodiment for data sharing between a node and a super node in accordance with an embodiment of the present invention;

FIG. **33** is a flowchart of an exemplary embodiment for updating node subscription information in accordance with an embodiment of the present invention;

FIG. **34** is a flowchart of an exemplary embodiment for node and super node system data exchange in accordance with an embodiment of the present invention;

FIG. **35** is a schematic diagram of exemplary data exchanges for a node and a super node in accordance with an embodiment of the present invention;

FIG. **36** is a schematic diagram of exemplary data exchanges for several nodes and a super node in accordance with an embodiment of the present invention;

FIG. **37** is a schematic diagram of exemplary data exchanges between several super nodes in accordance with an embodiment of the present invention;

FIG. **38** is a schematic diagram of exemplary system version checking between a node and a super node in accordance with an embodiment of the present invention;

FIG. **39** is a schematic diagram of exemplary system version location checking between a node and a super node in accordance with an embodiment of the present invention;

FIG. **40** is a schematic diagram of an exemplary embodiment for of exemplary system version checking between super nodes in accordance with an embodiment of the present invention;

FIG. **41** is a schematic diagram of an exemplary embodiment for choosing messages and special interest offerings in accordance with an embodiment of the present invention;

FIG. **42** is an exemplary user interface screen for user registration in accordance with an embodiment of the present invention;

FIG. **43** is an exemplary user interface screen for a user to indicate recipients of complaint messages in accordance with an embodiment of the present invention;

FIG. **44** is an exemplary user interface screen for user selection of electronic message clients in accordance with an embodiment of the present invention;

FIG. **45** is an exemplary user interface screen for user selection of an electronic message directory in accordance with an embodiment of the present invention;

FIG. **46** is an exemplary user interface screen for user selection of telephone opt-out parameters in accordance with an embodiment of the present invention;

FIG. **47** is an exemplary user interface screen for user selection of individual accounts and domains to not respond to messages from in accordance with an embodiment of the present invention;

FIG. **48** is an exemplary user interface screen for user selection of response setup preferences in accordance with an embodiment of the present invention;

FIG. **49** is an exemplary user interface screen for user selection of set up parameters for the responding process in accordance with an embodiment of the present invention;

FIG. **50** is an exemplary user interface screen for managing unwanted electronic messages from an individual account or domain in accordance with an embodiment of the present invention;

FIG. **51** is an exemplary user interface screen for managing of unwanted electronic messages from an IP address or IP family in accordance with an embodiment of the present invention;

FIG. **52** is an exemplary user interface screen for allowing the user to remove their email address or other unique identifier from a response URL in accordance with an embodiment of the present invention;

FIG. **53** is an exemplary user interface screen for user setup of electronic message response to sender in accordance with an embodiment of the present invention;

FIG. **54** is an exemplary user interface screen for user setup of electronic message reply in accordance with an embodiment of the present invention;

FIG. **55** is an exemplary user interface screen for user setup of electronic message response to domain links in accordance with an embodiment of the present invention;

FIG. **56** is an exemplary user interface screen for user setup of electronic message response to opt-out domain links in accordance with an embodiment of the present invention;

FIG. **57** is an exemplary user interface screen for user setup of electronic message reply to remove email links in accordance with an embodiment of the present invention;

FIG. **58** is an exemplary user interface screen for user setup of electronic message tracking in accordance with an embodiment of the present invention;

FIG. **59** is an exemplary user interface screen for user setup and management of spyware reporting and removal in accordance with an embodiment of the present invention;

FIG. **60** is an exemplary user interface screen for user setup and management of adware reporting and removal in accordance with an embodiment of the present invention;

FIG. **61** is an exemplary user interface screen for user setup and management of virus and worm reporting and removal in accordance with an embodiment of the present invention;

FIG. **62** is an exemplary user interface screen for user setup and management of botnet reporting and removal in accordance with an embodiment of the present invention;

FIG. **63** is an exemplary user interface screen for user setup of narrow-band client to transfer messages in accordance with an embodiment of the present invention;

FIG. **64** is an exemplary user interface screen for user setup of response to messages transferred from a narrow-band client in accordance with an embodiment of the present invention;

FIG. **65** is an exemplary schematic diagram of a memory map for a node operating system in accordance with an embodiment of the present invention;

FIG. **66** is an exemplary user interface screen for user setup and management of unwanted messages from selected accounts in accordance with an embodiment of the present invention;

FIG. **67** is an exemplary user interface screen for user setup and management of unwanted messages from selected domains in accordance with an embodiment of the present invention;

FIG. **68** is an exemplary user interface screen for user setup and management of unwanted messages from selected IP addresses in accordance with an embodiment of the present invention;

FIG. **69** is an exemplary user interface screen for user setup and management of unwanted messages from selected IP families in accordance with an embodiment of the present invention;

FIG. **70** is an exemplary user interface screen for user setup of interception and response to message community setup in accordance with an embodiment of the present invention; and

FIG. **71** is an exemplary user interface screen for user setup of special interest subjects information desired in accordance with an embodiment of the present invention.

DETAILED DESCRIPTION

"User" as used herein defines any entity having the ability to receive messages over a system designed or modified to receive such messages. An example of a user is a natural human person.

An embodiment of the present invention advantageously provides users the ability to individually choose which electronic messages are relevant and non-relevant. Unwanted messages are herein also considered as non-relevant messages.

Certain embodiments of the present invention advantageously provide a system and method that responds to user-defined non-relevant electronic messages by parsing the electronic messages for user-selected information, such as but not limited to explicit content and message origination information, including sending email addresses or other sending electronic addresses, sending email domains or unique message identifiers, reply email addresses or other reply electronic addresses, reply email domains or unique message identifiers, response domains, emails, URLs, or other electronic addresses or unique message identifiers. Additionally, the system and method optionally parses for opt out URL, email and other electronic addresses and anonymous FTP log-ins for message images, physical addresses and telephone numbers as the electronic messages are received or at a later time in accordance with the user's preference or available communication and machine resources.

Certain embodiments of the present invention permits a user to send electronic messages to relevant governmental and non-governmental entities relating to the electronic messages received by the user, by referencing the user postal code or by the user directly inputting specific electronic addresses or by other means.

Certain embodiments of the present invention advantageously provide a system and method that identifies, tracks specific variants and removes malicious software that may record the user's keystrokes, display banners and other computer based advertising, or report the user's behavior to known or unknown third parties. In certain embodiments, the network address the malicious software was received from and the network address or other unique identifiers that user information is being sent to are identified.

An embodiment of the present invention further advantageously provides a system and method that identifies, tracks specific variants and removes malicious software that enables a user's machine to be controlled remotely, to perform an attack on another computer or to send out email and other electronic messages without the user's knowledge. In certain embodiments, the network address the malicious software was received from is identified. In an embodiment, controller's network address or other unique identifiers that information is being sent to and received from are tracked.

Certain embodiments of the present invention advantageously provide a system and method that measures and captures sender suggested content for the user to review at a time convenient to the user. In certain embodiments, a system and method are advantageously provided for measuring the time it takes for an electronic packet to be sent and subsequently received by a user's machine, and tracing the route to the electronic message sender and response destinations.

Certain embodiments of the present invention advantageously provide a system and method that contacts the sender's web server and or electronic content repository(s) at the electronic address supplied by the sender and subsequent electronic links on the senders supplied destination URL and or electronic network address(s). In an embodiment, if the sender supplied web server(s) and or electronic content repository(s) is unable to respond, the system automatically continues to attempt to retrieve the sender offered information at a user defined interval and time period.

Certain embodiments of the present invention advantageously provide a system and method that writes a message to the sending email domain's web server log or electronic message's unique identifier's electronic content repository log, and requests that no further messages be sent to the user. In an embodiment, the sender's compliance with such a request is tracked.

Certain embodiments of the present invention advantageously provide a system and method that writes a message to the reply email domain's web server log or electronic message's unique identifier's electronic content repository log and requests that no further messages be sent to the user. In an embodiment, the sender's compliance with such a request is tracked.

Certain embodiments of the present invention advantageously provide a system and method that writes a message to the response web site(s)' web server log or electronic content repository(s)' log and requests that no further messages be sent to the user. In an embodiment, the sender's compliance with such a request is tracked.

Certain embodiments of the present invention advantageously provide a system and method that can be user configured to telephone the response telephone number included in a non-relevant message and deliver a message requesting that no further messages be sent to the user. In an embodiment, the sender's compliance with such a request is tracked.

Certain embodiments of the present invention advantageously provide a client version of the system and methods herein described for narrow band Personal Digital Assistants (PDAs) and cellular telephones. In an embodiment, a client

version is provided that is designed to gather information as described above and then either automatically or manually transfer the message information to a broadband and/or wired device equipped with the systems and methods described herein.

Certain embodiments of the present invention advantageously provide a system and method that queries the global root DNS server system and other controlling electronic message systems to determine the machines, locations and companies that are sending or facilitating the sending of non-relevant messages.

Certain embodiments of the present invention advantageously provide a system and method that provides the user a full suite of reports documenting the receipt and disposition of any non-relevant electronic message received and or responded to.

Certain embodiments of the present invention advantageously provide a system and method that allows for automatic updating of client software at pre-defined time intervals or when requested by a user.

Certain embodiments of the present invention advantageously provide a system and method that allows the user to copy software and associated files comprising the system or methods for use on unlimited machines tied to specific email address(s) and or electronic addresses.

Certain embodiments of the present invention advantageously provide a system and method that can be run in a propriety operating system that runs on top of Microsoft Windows Operating System or other client operating systems as an application in a propriety or non-propriety programming language using propriety and or non-propriety data encryption formats.

Certain embodiments of the present invention advantageously provide a system and method that allows for the user to select and deselect specific unwanted message sender user accounts, domains, IP addresses, and IP families to either intercept and respond to or to stop the intercept and response to the same.

Certain embodiments of the present invention advantageously provide a system and method that allows each user to share relevant unwanted message information with other users using peer-to-peer file sharing and grid architectures. In an embodiment, each user is allowed to set a threshold based on other users' preferences, when to preemptively intercept sender messages, domains, IP address(s) and IP family(s) and other electronic unique identifiers.

In certain embodiments of the present invention, as each user chooses to intercept, respond to and classify specific unwanted messages, these choices are shared with Super Nodes on the network, which, in turn, share the aggregate information with other Super Nodes and Nodes. In an embodiment, each user is given the choice of becoming either a Node or Super Node and can switch from one to the other at the will of the user. In certain embodiments, file and data sharing and polling of both the Nodes and Super Nodes to facilitate information sharing and propagation between Nodes and Super Nodes is allowed.

The preferred methods and systems described herein can be realized without much additional special user training or instruction. Of course, some degree of planning and careful consideration in user specification of non-relevant messages and desired response to non-relevant messages is preferred.

An additional advantage provided by forms of the present invention is that the Super Nodes may act as primary repositories of related sender information to share with Nodes and other Super Nodes. In an embodiment, both Super Nodes and Nodes send and receive related sender account, domain, IP address and IP family aggregate data to Nodes and other Super Nodes.

In certain embodiments, as Super Nodes appear on the network they seek out other and the least busy Super Nodes to share information, update databases, look up tables and synchronize information with each other at user determined time intervals. In an embodiment, as Nodes appear on the network they seek out Super Nodes to share, update databases, look up tables and synchronize information with each other at user determined time intervals.

Another advantage afforded by certain preferred embodiments of the present invention is that Super Nodes may send gathered system data to Nodes for processing to facilitate the tabulation of system-wide response, intercept data and classification. In an embodiment, the gathered system data is collected and either tabulated by the Super Node or sent in data fragments to Nodes for tabulation and return to the related Super Nodes to create an aggregate system-wide response, intercept and classification data for distribution to Super Nodes and Nodes for system-wide propagation. Also in an embodiment, Super Nodes can act as repositories for the entire system-wide network and or portions of the repositories and individual elements.

In certain embodiments, users are given the option of adopting system-wide user population classifications, either by percentage and or quantities of aggregate data, dynamically add and or subtract sender account(s), domain(s), IP addresses and IP families for interception and response.

Certain embodiments of the present invention advantageously provide a system and method that allows a user to choose to receive, schedule or control special interest offers or messages on an anonymous basis.

Certain embodiments of the present invention advantageously provide a system and method that allows a user to set a threshold as to when to receive and stop receiving subscribed message senders' messages based on time or quantity of messages. In an embodiment, the message sender sends one message and the system in turn sends messages to subscribed users of the system using a peer-to-peer file sharing and grid architecture. In an embodiment, users can subscribe and unsubscribe at will.

Certain embodiments of the present invention advantageously provide a system and method that allows a user to input email or other electronic addresses allowing the user to create an original copy of any software comprising the system and method, and send such software using electronic or other means to other users email and or electronic addresses. Advantageously, this process allows new potential users the opportunity to become familiar with the system and method for a trial period and purchase, install, uninstall and use such software as designed.

Another advantage of embodiments of the present invention the incorporation of a marketing and re-selling function, wherein a unique user identifier is retained in all subsequent copied versions of any software comprising the system and method described herein for sales, distribution and compensation tracking.

Certain embodiments of the present invention advantageously provide a system and method that allows for potential re-sellers of the system to apply for re-seller status and choose from a variety of ways to be paid, such as in cash or premiums at the end of each selling period. In an embodiment, the re-seller is instructed to download a copy of system re-seller software in which the re-seller's unique re-seller identifier is embedded.

Certain embodiments of the present invention further advantageously provide for re-sellers to recruit and receive remuneration for the recruitment of new re-sellers by allowing potential new users to also become re-sellers. In an embodiment, re-sellers can freely distribute copies of any software comprising the system and method with their unique re-seller identifier embedded for potential new users to purchase and or potential new re-sellers to apply to distribute the system software.

In an embodiment of the present invention, a system and method designed to work with a variety of electronic software messaging systems and techniques including but not limited to email, instant messaging and short message services in wired and wireless environments is provided. In certain embodiments, the system and method can be applied to an individual client machine or to a private email server or other electronic message system.

In a preferred embodiment, users obtain software embodying the system and method of the invention for use on their personal computer or other electronic device. Such software, device, and communications are hereinafter understood to comprise the "system", and references to the "system" include but are not limited to these components.

In an embodiment, a user chooses which messages they consider as relevant and non-relevant, and the relevant and non-relevant user profile is saved to be applied in an automated fashion to future messages received.

In a preferred embodiment, users are in communicative connection with a network, such as the Internet. Any physical means of connecting the users to the network may be employed in the system. For example, users may connect to the Internet via a personal computer running Internet browser software and having a modem dialup; digital subscriber line (DSL), cable modem or satellite Internet connection. Users may also connect to a network via personal handheld devices, such as Blackberry™, or other wireless device, without limitation.

An exemplary embodiment of the inventive system includes user interface screens. Such user interface screens are generally useful for obtaining user input, such as user preferences and personalized messages, and for generating reports or information for the user. User interface screens provided herein, as well as the various flowcharts and schematic diagrams, are understood to be representative of embodiments of the invention, and they may be modified without deviating from the present invention.

In an embodiment, it is desirable for the user to register use of the system using a user interface screen for user registration **4200**, such as that presented in FIG. **42**. In an exemplary user registration screen, the user is presented with input edit fields for general information, such as their first name **4202**, last name **4204** and postal code **4206**. They may also be presented with the opportunity to add accounts to be protected **4208**, and check boxes **4210** to indicate if the account belongs to a minor. In an embodiment, the user is also offered the opportunity to input the addresses of friends **4212** to whom they would recommend the system. The user's inputs are preferably processed when they select the submit button **4214** or other similar-functioning control.

In an embodiment, the user is also able to designate third parties to automatically receive an email message reporting complaints. An exemplary user interface screen for third party complaint messages **4300** is provided in FIG. **43**. A complaint message may be provided automatically by the system, or the user may select to edit the complaint message by selecting the Edit message control **4302**. For example, the automatically generated message may include the user's name, whereas the user does not wish to send this information. By selecting the Edit message control **4302**, the user will be allowed to view and edit the message to be sent, which may be presented in a dialog box (not depicted).

The exemplary user interface screen for third party complaint messages **4300** preferably includes a listing of commonly-used third party recipients, with check boxes associated with each **4304**. Selecting a check box and selecting the submit button **4310** will cause the system to send an email reporting each complaint to the third party recipient associated with that check box. Additionally, in an embodiment the user may input any email address **4308** to send the email to, by selecting the check box **4306** associated with the email address **4308** and selecting the submit button **4310**.

In an embodiment, the user is given the choice to choose what type of software they use to send and receive email or electronic messages. For example, the user may select email client programs, web browsers, instant messaging client, text messaging clients or other electronic messaging clients. FIG. **44** is an exemplary user interface screen for user selection of electronic message clients **4400**. In an embodiment, the user is presented a listing **4402** of electronic message clients, each associated with a check box. By selecting its check box and the submit button **4406**, the user instructs the system which electronic message client to use. Additionally, the listing **4402** of electronic message clients may associate a button **4404** for selecting the actual program to use as the electronic message client. Selecting the button preferably presents a dialog box to enable the user to select the electronic message client program to use. The selected program would then be used when the user presses the submit button **4406**.

In an embodiment of the present invention, the user is given the choice of which directories on the user's storage device(s) the system will parse. FIG. **45** is an exemplary user interface screen for user selection of an electronic message directory **4500** to parse. The user is presented with a listing **4502** of directories likely to store electronic messages, each directory associated with a check box and a "select directory" button **4504**. Upon selection of a check box and the submit button **4506**, the system parses the directory associated with the selected check box. In an embodiment, if there are more than one directories associated with the selected check box, the system will parse all of them. In an embodiment, the user may select the "select directory" button **4504** associated with a selected check box, and the user will then be presented with a choice of all directories corresponding with the selected check box. The user may then select the directories to parse and select the submit button **4506** for the system to begin parsing the directories.

A flowchart **100** of an exemplary process for parsing an electronic contact(s) or address book in accordance with an embodiment of the present invention is depicted in FIG. **1**.

In an embodiment of the present invention, an address book or other object containing contact information is parsed **102** to identify individual accounts and domains, which are then displayed to the user **104**. For example, the user may have an address book maintained by the user's email software, such as Microsoft's Outlook®. In an embodiment, the user may also be provided with means to manually add an account **106**. The address book or other object parsed is preferably located in a directory chosen for system parsing by the user.

Preferably, a user interface is presented to the user listing each account or domain. For each account **112**, the user may optionally check **108** or uncheck **116** a box, radio button, or other selection user interface control. All messages from checked accounts may then be allowed **110**, whereas all messages from unchecked accounts may be intercepted and

responded to **118**, as described herein. In a similar way, the user may check **120** or uncheck **122** individual domains, and all the messages from checked domains may be allowed **124** whereas all the messages from unchecked domains may be intercepted and responded to **126**.

A user interface screen for user selection of individual accounts and domains to not respond to messages from **4700** of an exemplary embodiment of the invention is presented in FIG. **47**. The user interface screen **4700** includes a multi-columned selection area **4702** listing accounts, and having individual and domain check boxes **4704**, **4706** associated with each account. Additional features of the user interface screen **4700** in an embodiment may include a selection control **4708** to allow the user to select all accounts and domains with a single selection, an edit field **4710** enabling a user to type in accounts to be added, an add button control **4712** to implement the addition of an account to be added, and a submit button control **4714** to finalize and actuate the user's selections on the user interface screen **4700**. In an embodiment, checking the individual check box for an account **4704** and pressing the submit button control **4714** causes the system to not intercept and respond to the selected account henceforth. Similarly, checking the domain check box for an account **4706** and pressing the submit button control **4714** causes the system to not intercept and respond to any account from the domain of the selected account henceforth.

In an embodiment, the system allows for calling one or more message derived opt-out telephone numbers using either VOIP (Voice Over Internet Protocol) technology or traditional telephone network services. Preferably, the user may also choose to call toll free or numbers that incur a cost to the user. In an embodiment, the system blocks calls to pay-per-call numbers and "900" numbers, which incur an additional charge above and beyond the standard telephone company charges. The system may parse the entire message for text to voice communication, initiates the call, wait for an answer, announces that this telephone call is in response to an un-wanted electronic message that was received, the desire to opt-out and that the call is being recorded. Additionally, in an embodiment, the message will inform the receiver of the call, and that they will be given prompts to acknowledge the opt-out process at the end of the message.

In an embodiment, the system reads the entire electronic message to the receiver, asks the receiver to acknowledge that the un-wanted message originated from them, and prompts the receiver to acknowledge the telephone call opt-out process. If the receiver hangs before the opt-out call is completed, the system preferably redials according to user defined time settings or until completion of the entire call. In an embodiment, the system also saves the opt-out call information no matter what the outcome.

A flowchart of an exemplary process **200** for extracting telephone number(s) from messages and responding to the messages at the telephone number(s) is presented in FIG. **2**, which is herein described in greater detail. An electronic message **202** is parsed **204** to extract the telephone numbers, which are saved **206** by the system. Each extracted telephone number is then checked to determine whether a call to the telephone number is toll free **208**.

If the call to the telephone number is toll free, the system converts the email message or a portion of the email message selected by the user to be sent into a voice format **230**. This can be accomplished, for example, by standard commercially available text-to-voice software, such as IBM VIAVOICE® or using a custom text-to-voice converter in conjunction with the system. Next, the call to the toll free number is initiated **232**, and the call is announced to the receiver **234**. If the call is not received, the number is redialed (not depicted). Once the call is received and announced **234**, the converted message is played to the receiver **238**. If the receiver hangs up before the message is played, the call is attempted again **236**. In an embodiment, the call may be attempted a user-defined number of times.

In an embodiment, if the receiver of the call does not acknowledge **240** that they are the originators of the email, then the system may announce a user-defined message and terminate the call.

In an embodiment, if the receiver of the call acknowledges **240** that they are the originators of the email, the receiver is given the opportunity to accept the user's opt-out option **244**. If accepted, the opt-out information is preferably saved **248**. Otherwise, if the receiver does not accept the user's opt-out option, a user-defined message is announced and the call is terminated **246**, to be retried again **236**.

In an embodiment, if the call to the telephone number is a "900" number call **200** or its equivalent—a call requiring the caller to pay for the duration of the call, the process is terminated **218** and a record is saved **248**. If the call is not a "900" number, but instead a normal toll call, the system determines whether the toll call is allowed **220** on the user's telephone system. For example, some commercial telephone systems are set up to block outgoing toll calls. If the toll call is allowed, the system preferably proceeds to step of converting the message the user wants to send into a voice format **230**, and proceeds as described above. Otherwise, in an embodiment, if the toll call is not allowed, the system checks to determine whether VOIP is available **224**. If VOIP is available, the system proceeds to the converting step **230** as above, placing the telephone call over via VOIP. If VOIP is not available **210**, the process is terminated **218** and a record is saved **248**.

In an embodiment, the user is presented with a user interface screen **4600** for user selection of telephone opt-out parameters **4602**, such as that depicted in FIG. **46**. Using this user interface screen **4600**, the user may select radio buttons **4604**A, **4604**B for several telephone opt-out options, and may specify the number of redials **4606** before terminating the telephone opt-out process. For example, in an embodiment, the telephone opt-out user interface screen may have radio buttons **4604**A, **4604**B for whether only toll free numbers are to be called, whether "900" numbers are blocked, whether VOIP should be used if available, and whether the entire email should be read to the sender. The user selections are preferably not implemented by the system until a submit button **4610** is selected, and may be cleared by selection of a clear all button **4608**.

In an embodiment of the invention, the system can be user configured not to respond if more than a user defined amount of un-wanted messages come from any domain(s) in a user defined time frame. Also in an embodiment, if more than a user defined amount of un-wanted messages directs the user to any domain(s) in a user defined time frame, or if a domain that was sent abuse or complaint message sends a reply email or message, the system will intercept, but will not respond.

FIG. **48** shows an exemplary user interface screen **4800** for user selection of response setup preferences in accordance with an embodiment of the present invention. Using this exemplary user interface screen **4800**, a user may designate the time and count parameters for domain message response. For example, the user may set the number of messages **4802**, **4804** that must be received within a user specified number of hours **4806**, **4808** in order for the system to not respond to further messages from an account or domain. Further, in an embodiment, the user can select the number of hours **4810**, **4812** that messages from a domain which has been sent a

complaint or abuse response are not to be responded to. In an embodiment, these user-selected parameters do not take effect until the user selects the submit button **4814**.

A flowchart **300** of an exemplary process for an anti-looping function in an embodiment of the present invention is depicted in FIG. **3**. In an embodiment, an unwanted message is received **302** and the system looks up the message sender's account and domain **304**. In such an embodiment, the system determines whether the sender has sent an unwanted message in the past **306**, or if the sender's domain has sent an unwanted message in the past. If either case the sender or the sender's domain has sent an unwanted message in the past, in an embodiment of the invention the system checks the user's response preferences **308**, which may have been provided using a user interface screen such as described above.

In an embodiment, the system determines if the unwanted messages received from the sender or the sender's domain exceed the user's preference threshold **310**, and, if so, no response is made to the unwanted message **312**. Otherwise, an intercept and response is preferably initiated **314**.

In an embodiment, if the sender or sender's domain has not sent an unwanted message in the past, the system determines whether the unwanted message is a complaint domain message **318** or an abuse domain message **320**, and proceeds to the step of checking the user preferences **308**.

In an embodiment, the system can be user configured to parse email or electronic message for protected email account identification, explicit content, investment offers, sending email addresses or other sending electronic addresses, sending email domain or unique message identifiers, reply email addresses or other reply electronic addresses, reply email domain or unique message identifiers, response domains, emails, URLs, or other electronic addresses or unique message identifiers, opt-out URLs or email or other sending electronic addresses sending email domain or unique message identifiers, physical addresses, anonymous FTP log-ins for message images, spyware, adware, virus, worms, botnets, telephone number and user defined topics, words and phrases.

FIG. **4** is a flowchart of an exemplary embodiment for parsing email or electronic messages **400**. In such an embodiment, the user's device or machine **404** receives a message **408** from the Internet or other connected network **402** through the user's message client **406**. In an embodiment, the system parses the header of the received message for protected email account identifiers **410**. If no protected email account identifiers are located, an embodiment of the system does not respond **412** to the received message and the system proceeds to parse the next message **414**.

In an embodiment, if the protected email account identifiers are located, the system further parses the received message for explicit content **416**, sending email address **418**, reply email addresses and headers **420**, response domains, response emails, response URLs **422**, opt-out domains, opt-out emails, opt-out URLs **424**, physical addresses **426**, anonymous FTP log-in information **428**, spyware **430**, adware **432**, viruses, worms **434**, botnets **436**, telephone numbers **438**, investment offers **440**, and user defined words, topics and phrases **442**. In an embodiment, the parsed information may be saved in system memory **44** and written to a system database **446**.

An exemplary user interface screen **4900** for user selection of set up parameters for the responding process, such as that described in FIG. **4** is provided in FIG. **49**. The user is presented with a list of check boxes **4902**, each associated with at least one of explicit content, sending email addresses, reply email addresses, response domains, emails and URLs, opt-out domains, emails and URLs, physical addresses, anonymous FTP log-in information, spyware, adware, viruses and worms, botnets, telephone numbers, investment offers **440**, and user defined words, topics and phrases, the user defined items also associated with an edit field **4904** for the user to input the user-defined information. In an embodiment, the user selects which of these items to parse electronic messages for when the system executes parsing as described above. Additionally, in an embodiment, the user is also presented with check boxes to pause the responding process when the user initiates network activity and to save all information parsed and discovered for comparison and reporting. In an embodiment, the user's selections are not recognized by the system until the user selects the submit button **4906**.

An embodiment of the system can be user defined to remember, intercept and respond to a received message's sender, reply and destination domains, and unique network identifiers. In an embodiment, the user may flag received messages that are unwanted, and the system saves the unwanted message's sender, reply and response domains, IP addresses and unique network identifiers. In an embodiment, the user may be given a choice to have the system intercept, respond to and dispose of future received messages from the individual sender, domain, IP address and or IP address family. Preferably, all future messages received from the individual sender, domain, IP address and or IP address family are intercepted and responded to according to user defined preferences and disposed of. The system may also save the message and information parsed or discovered, and record it to a database for look up, comparison and reporting.

FIGS. **50** and **51** depict exemplary user interface screens **5000**, **5100** for managing unwanted electronic messages from an individual account or domain and managing unwanted electronic messages from an IP address or an IP family, respectively, in accordance with an embodiment of the present invention. In an embodiment, the user is given the option of selecting a check box **5002** to intercept all future messages from an account, and another check box **5004** to intercept all future messages from a domain. In an embodiment, the user may select to be presented with the same user interface screen **5000** after a user-defined number of additional messages are received from the domain **5006**. In an embodiment, the system does not act on the user preferences until the user selects the submit button **5008**.

In an embodiment, the user is given the option of selecting a check box **5102** to intercept all future messages from an IP address, and another check box **5104** to intercept all future messages from an entire IP address family. In an embodiment, the user may be presented with a list box listing all domains at the given IP address. In an embodiment, the user may select to be presented with the same user interface screen **5100** after a user-defined number of additional messages are received from the domain **5108**. In an embodiment, the system does not act on the user preferences until the user selects the submit button **5110**.

FIG. **5** depicts a flowchart of an exemplary embodiment for handling unwanted message sender information **500**. In an embodiment, after the system has parsed a potential unwanted message **501**, as described above, a system database (not depicted) may be queried to determine whether the potential unwanted message originated from a known unwanted user, domain, IP address, or IP address family **502**, and, if so, how many times this unwanted user, domain, IP address, or IP address family have sent unwanted messages **504**. In an embodiment, the user may be presented with a user interface screen, such as those described above, displaying a system message with IP information and an estimated percentage of message reduction if the user, domain, IP address,

or IP address family is marked as unwanted **506**. In an embodiment, as indicated in the above description of an exemplary user interface, the user may then select **508** to be presented with the user interface screen again after a user-defined number of additional messages are received **510**, to intercept and respond to future messages from the domain or IP address **512**, or to intercept and respond to future messages from the IP family **514**. The user's selection is then preferably saved and acted upon by the system **516**.

In an embodiment, when the potential unwanted message did not originate from a known unwanted user, domain, IP address, or IP address family, the system may present the message to the user **518**, and allow the user to mark the message as unwanted **520**. If the message is marked as unwanted, in an embodiment the system saves the message and message information to a database, and intercepts and responds to all future messages form the sender **522**. In an embodiment, the user may also select to intercept all future messages from the sender's domain **524**, and the system then saves this information and intercepts and responds to all future messages from the domain **526**.

In an embodiment of the present invention, the system allows the user to specify that user email or individual addresses are to be removed from any response URLs or unique identifiers. FIG. **52** is an exemplary user interface screen for allowing the user to remove their email address or other unique identifier from a response URL **5200**. In an embodiment the user is presented with a user interface having radio button controls **5202**, **5204** for the user to select whether **5202** or not **5204** the user's email address or other unique identifiers are to be removed from all the user's response URLs. The system preferably acts on the user's selection when the user selects the submit button **5206**.

In an embodiment, the system implements removing user email or individual addresses from the response URL by implement a process **600** depicted in FIG. **6**, which includes first looking up the response URL **602**, parsing the response URL for user email address and other unique identifiers **604**, removing the user email address and any other unique ID **606**, and optionally saving the response URL stripped of the user's email address and other unique IDs to a system database **608**, for later use.

In an embodiment of the invention, the system may parse received messages for investment content or to determine if explicit content has been sent to a minor. FIG. **7** is a flowchart **700** of an exemplary embodiment of a process for sending a copy of the message and a complaint to appropriate authorities in the event of explicit material being sent to a minor or investment message content. In an embodiment, the system may parse the message for investment content **702** and, if found, send the message to an appropriate governmental regulatory authority or to a user defined electronic address **704**. Also in an embodiment, the system may parse the message for explicit content **706**, and, if found, determine if the message recipient is a minor child **708**, and, if the recipient is a minor child, send the message to an appropriate law enforcement authority or to a user-specified electronic address **710**.

In an embodiment, the system automatically responds with a variety of user defined responses to all user defined and un-defined electronic or email messages received by the user with one or more of the following techniques: pinging, sending electronic messages to related servers, tracing the route of the sending electronic or email messages domains and unique identifiers from the user's machine, looking up sending electronic or email message's domain, registrar contact information and unique identifiers, requesting content from sending electronic or email message's domains web server or electronic content repository with a user defined number of open sockets. In an embodiment, if sending electronic or email message's web server or electronic content repository does not respond in a user defined time period, the system it will try again in a user defined time frame and continue for up to a user defined amount of times or until success.

Also in an embodiment, the system can be user defined to either trap the response web or electronic content repository content and dispose of it immediately, or to save the response web or electronic content repository content for later viewing by the user, either for online or for off-line viewing. In an embodiment, if a sending electronic or email message's web server or electronic content repository responds, the system can be user defined to respond to the sending electronic or email domain's web server logs by writing to the log a user defined opt-out message to discontinue future electronic and/or email messages to the user and drop the connection. The system in an embodiment can also send user defined complaint messages to the domain network suppliers' contact and unique identifiers.

FIG. **53** is an exemplary user interface screen for user setup of electronic message response to sender **5300** as described above. In an embodiment, the user is presented with a user interface that includes check boxes **5302**, each associated with possible actions, such as those depicted—pinging the sender's server, tracing the route to the sender's server, and looking up the sender's domain register. In an embodiment, the user may also select the number of sockets **5304** to open with the sender, as well as specify retry parameters, such as the amount of time to wait for a response **5306**, the amount of time before each retry **5308**, and the number of retrys **5310**. The user in an embodiment may also be provided with the ability to select what to do with the message content after the message is trapped. For example, the options might include disposing of the contents **5312**, saving the contents for off-line viewing **5314**, and saving the contents for online viewing **5316**. In an embodiment the user is presented with the opportunity to edit a opt-out message to be sent to the sender's server log **5318** and network supplier **5320**. In an embodiment, the user's preferences are not acted on by the system until the user selects the submit button **5322**.

FIGS. **54**, **55** and **56** are exemplary user interface screens that present the user with the identical preference selections described above for response to the message sender, but for use with reply messages, response messages, and opt-out messages, respectively.

In FIG. **54**, an exemplary user interface screen for user setup of electronic message response to reply messages **5400** is presented to the user. In an embodiment, the user is presented with a user interface that includes check boxes **5402**, each associated with possible actions, such as those depicted—pinging the reply server, tracing the route to the reply server, and looking up the reply server's domain register. In an embodiment, the user may also select the number of sockets **5404** to open with the reply server, as well as specify retry parameters, such as the amount of time to wait for a response **5406**, the amount of time before each retry **5408**, and the number of retries **5410**. The user in an embodiment may also be provided with the ability to select what to do with the message content after the message is trapped. For example, the options might include disposing of the contents **5412**, saving the contents for off-line viewing **5414**, and saving the contents for online viewing **5416**. In an embodiment the user is presented with the opportunity to edit an opt-out message to be sent to the reply server log **5418** and

network supplier **5420**. In an embodiment, the user's preferences are not acted on by the system until the user selects the submit button **5422**.

In FIG. **55**, an exemplary user interface screen for user setup of electronic message response to response messages **5500** is presented to the user. In an embodiment, the user is presented with a user interface that includes check boxes **5502**, each associated with possible actions, such as those depicted—pinging the response server, tracing the route to the response server, and looking up the response server's domain register. In an embodiment, the user may also select the number of sockets **5504** to open with the response server, as well as specify retry parameters, such as the amount of time to wait for a response **5506**, the amount of time before each retry **5508**, and the number of retries **5510**. The user in an embodiment may also be provided with the ability to select what to do with the message content after the message is trapped. For example, the options might include disposing of the contents **5512**, saving the contents for off-line viewing **5514**, and saving the contents for online viewing **5516**. In an embodiment the user is presented with the opportunity to edit a opt-out message to be sent to the response server log **5518** and network supplier **5520**. In an embodiment, the user's preferences are not acted on by the system until the user selects the submit button **5522**.

In FIG. **56**, an exemplary user interface screen for user setup of electronic message response to opt-out messages **5600** is presented to the user. In an embodiment, the user is presented with a user interface that includes check boxes **5602**, each associated with possible actions, such as those depicted—pinging the opt-out server, tracing the route to the opt-out server, and looking up the opt-out server's domain register. In an embodiment, the user may also select the number of sockets **5604** to open with the opt-out server, as well as specify retry parameters, such as the amount of time to wait for a response **5606**, the amount of time before each retry **5608**, and the number of retries **5610**. The user in an embodiment may also be provided with the ability to select what to do with the message content after the message is trapped. For example, the options might include disposing of the contents **5612**, saving the contents for off-line viewing **5614**, and saving the contents for online viewing **5616**. In an embodiment the user is presented with the opportunity to edit an opt-out message to be sent to the opt-out server log **5618** and network supplier **5620**. In an embodiment, the user's preferences are not acted on by the system until the user selects the submit button **5622**.

A flowchart of an exemplary embodiment for automatic user response(s) to sender electronic or email messages is provided in FIG. **8**. In an embodiment, the system looks up the message sender's information in a system database **802**, and checks user preferences **804** to determine if the user has elected to ping the sender's server **806**, trace the route to the sender's server **818**, look up a sender's domain registrar **830**, or request content offered by the sender **842**. If none of these actions were selected by the user, then the system preferably continues with the next message **848**.

Otherwise, in an embodiment, if the user has elected to ping the sender's server, the sender's server is pinged **808**. In such an embodiment, if the ping is successful **814**, the system then records the time expended by the pinging operation **816**. Preferably, the system may be configured to wait for pinging success for a predetermined duration of time, which may be user defined, and to retry the pinging operation up to a user defined number of times after waiting for a user defined amount of time **810**, failing after the user defined number of pinging attempts have occurred **812**.

Similarly, in an embodiment, if the user has elected to trace the route to the sender's server, the route is traced **820**. In such an embodiment, if the trace is successful **824**, the system then records the time it took to receive packets from the sender's server and to trace the route information **828**. Preferably, the system may be configured to wait for route tracing success for a predetermined duration of time, which may be user defined, and to retry the route tracing operation up to a user defined number of times after waiting for a user defined amount of time **822**, failing after the user defined number of attempts have been made to trace the route **826**.

Likewise, in an embodiment, if the user has elected to, the sender's domain registrar may be looked up **832**. In such an embodiment, if the look up is successful **838**, the system then records the sender's registrar contact information **840**. Preferably, the system may be configured to wait for the look up of the sender's domain registrar for a predetermined duration of time, which may be user defined, and to retry the look up operation up to a user defined number of times after waiting for a user defined amount of time **834**, failing after the user defined number of attempts at look up have been attempted **836**.

In an embodiment, if the user has so elected, content may be requested from the sender **842**. In such an embodiment, if the content request is successful **850**, the system then opens a user defined number of sockets **852**, saves the date, time, server type, IP address, domain name and other identification information **854**, and traps the content **856**. In an embodiment, the system then checks to determine if the user has elected to send an opt-out message to the sender's server log **858**, and, if so, the system looks up the opt out-message **860**, and sends it along with the system installation date when the last socket is available **862**. In either case, in an embodiment, the system next checks to determine if the user has elected to send a complaint message to the sender's network supplier **864**, and, if so, the system looks up the user defined network supplier message **866** and sends it to the sender's network supplier **868**. The system may be further configured to check other user preferences **870**, such as whether to dispose of the content **872**, whether to save the content for online viewing **874**, which may be performed by saving the URL to a system database **878**, or whether to save the content for offline viewing **876**, which may be performed by saving the content into a directory on the user's local machine **880**. The system may then continue with the next message **848**.

A flowchart of an exemplary embodiment for automatic user response(s) to reply electronic message is provided in FIG. **9**. In an embodiment, the system looks up the reply link message information in a system database **902**, and checks user preferences **904** to determine if the user has elected to ping the reply link server **906**, trace the route to the reply link server **918**, look up the reply link server's domain registrar **930**, or request content from the reply link server **942**. If none of these actions were selected by the user, then the system preferably continues with the next message **948**.

Otherwise, in an embodiment, if the user has elected to ping the reply link server, the reply link server is pinged **908**. In such an embodiment, if the ping is successful **914**, the system then records the time expended by the pinging operation **916**. Preferably, the system may be configured to wait for pinging success for a predetermined duration of time, which may be user defined, and to retry the pinging operation up to a user defined number of times after waiting for a user defined amount of time **910**, failing after the user defined number of pinging attempts have occurred **912**.

Similarly, in an embodiment, if the user has elected to trace the route to the reply link server, the route is traced **920**. In

such an embodiment, if the trace is successful **924**, the system then records the time it took to receive packets from the reply link server and to trace the route information **928**. Preferably, the system may be configured to wait for route tracing success for a predetermined duration of time, which may be user defined, and to retry the route tracing operation up to a user defined number of times after waiting for a user defined amount of time **922**, failing after the user defined number of attempts have been made to trace the route **926**.

Likewise, in an embodiment, if the user has elected to, the reply link server's domain registrar may be looked up **932**. In such an embodiment, if the look up is successful **938**, the system then records the reply link server's registrar contact information **940**. Preferably, the system may be configured to wait for the look up of the reply link server's domain registrar for a predetermined duration of time, which may be user defined, and to retry the look up operation up to a user defined number of times after waiting for a user defined amount of time **934**, failing after the user defined number of attempts at look up have been attempted **936**.

In an embodiment, if the user has so elected, content may be requested from the reply link server **942**. In such an embodiment, if the content request is successful **950**, the system then opens a user defined number of sockets **952**, saves the date, time, server type, IP address, domain name and other identification information **954**, and traps the content **956**. In an embodiment, the system then checks to determine if the user has elected to send an opt-out message to the reply link server's server log **958**, and, if so, the system looks up the opt out-message **960**, and sends it along with the system installation date when the last socket is available. In either case, in an embodiment, the system next checks to determine if the user has elected to send a complaint message to the reply link server's network supplier **964**, and, if so, the system looks up the user defined network supplier message **966** and sends it to the reply link server's network supplier **968**. The system may be further configured to check other user preferences **970**, such as whether to dispose of the content **972**, whether to save the content for online viewing **974**, which may be performed by saving the URL to a system database **978**, or whether to save the content for offline viewing **976**, which may be performed by saving the content into a directory on the user's local machine **980**. The system may then continue with the next message **948**.

A flowchart of an exemplary embodiment for automatic user response(s) to response links and addresses is provided in FIG. **10**. In an embodiment, the system looks up the response message information in a system database **1002**, and checks user preferences **1004** to determine if the user has elected to ping the response server **1006**, trace the route to the response server **1018**, look up the response server's domain registrar **1030**, or request content from the response server **1042**. If none of these actions were selected by the user, then the system preferably continues with the next message **1048**.

Otherwise, in an embodiment, if the user has elected to ping the response server, the response server is pinged **1008**. In such an embodiment, if the ping is successful **1014**, the system then records the time expended by the pinging operation **1016**. Preferably, the system may be configured to wait for pinging success for a predetermined duration of time, which may be user defined, and to retry the pinging operation up to a user defined number of times after waiting for a user defined amount of time **1010**, failing after the user defined number of pinging attempts have occurred **1012**.

Similarly, in an embodiment, if the user has elected to trace the route to the response server, the route is traced **1020**. In such an embodiment, if the trace is successful **1024**, the system then records the time it took to receive packets from the response server and to trace the route information **1028**. Preferably, the system may be configured to wait for route tracing success for a predetermined duration of time, which may be user defined, and to retry the route tracing operation up to a user defined number of times after waiting for a user defined amount of time **1022**, failing after the user defined number of attempts have been made to trace the route **1026**.

Likewise, in an embodiment, if the user has elected to, the response server's domain registrar may be looked up **1032**. In such an embodiment, if the look up is successful **1038**, the system then records the response server's registrar contact information **1040**. Preferably, the system may be configured to wait for the look up of the response server's domain registrar for a predetermined duration of time, which may be user defined, and to retry the look up operation up to a user defined number of times after waiting for a user defined amount of time **1034**, failing after the user defined number of attempts at look up have been attempted **1036**.

In an embodiment, if the user has so elected, content may be requested from the response server **1042**. In such an embodiment, if the content request is successful **1050**, the system then opens a user defined number of sockets **1052**, saves the date, time, server type, IP address, domain name and other identification information **1054**, and traps the content **1056**. In an embodiment, the system then checks to determine if the user has elected to send an opt-out message to the response server's server log **1058**, and, if so, the system looks up the opt out-message **1060**, and sends it along with the system installation date when the last socket is available. In either case, in an embodiment, the system next checks to determine if the user has elected to send a complaint message to the response server's network supplier **1064**, and, if so, the system looks up the user defined network supplier message **1066** and sends it to the response server's network supplier **1068**. The system may be further configured to check other user preferences **1070**, such as whether to dispose of the content **1072**, whether to save the content for online viewing **1074**, which may be performed by saving the URL to a system database **1078**, or whether to save the content for offline viewing **1076**, which may be performed by saving the content into a directory on the user's local machine **1080**. The system may then continue with the next message **1048**.

A flowchart of an exemplary embodiment for automatic user response(s) to opt-out links and addresses is presented in FIG. **11**. In an embodiment, the system looks up the opt-out message information in a system database **1102**, and checks user preferences **1104** to determine if the user has elected to ping the servers associated with the opt-out links and addresses **1106** (hereinafter, the "opt-out servers"), trace the route to the opt-out servers **1118**, look up the opt-out servers' domain registrars **1130**, or request content from the opt-out servers **1142**. If none of these actions were selected by the user, then the system preferably continues with the next message **1148**.

Otherwise, in an embodiment, if the user has elected to ping the opt-out servers, the opt-out servers are pinged **1108**. In such an embodiment, if the pings are successful **1114**, the system then records the time expended by the pinging operations **1116**. Preferably, the system may be configured to wait for pinging success for a predetermined duration of time, which may be user defined, and to retry the pinging operations up to a user defined number of times after waiting for a user defined amount of time **1110**, failing after the user defined number of pinging attempts have occurred **1112**.

Similarly, in an embodiment, if the user has elected to trace the routes to the opt-out servers, the routes are traced **1120**. In

such an embodiment, if the traces are successful **1124**, the system then records the time it took to receive packets from the opt-out servers and to trace the route information **1128**. Preferably, the system may be configured to wait for route tracing success for a predetermined duration of time, which may be user defined, and to retry the route tracing operation up to a user defined number of times after waiting for a user defined amount of time **1122**, failing after the user defined number of attempts have been made to trace the routes **1126**.

Likewise, in an embodiment, if the user has elected to, the opt-out servers' domain registrars may be looked up **1132**. In such an embodiment, if the look ups are successful **1138**, the system then records the opt-out servers' registrar contact information **1140**. Preferably, the system may be configured to wait for the look up of the opt-out servers' domain registrars for a predetermined duration of time, which may be user defined, and to retry the look up operations up to a user defined number of times after waiting for a user defined amount of time **1134**, failing after the user defined number of attempts at look up have been attempted **1136**.

In an embodiment, if the user has so elected, content may be requested from the opt-out servers **1142**. In such an embodiment, if the content requests are successful **1150**, the system then opens a user defined number of sockets **1152**, saves the date, time, server type, IP address, domain name and other identification information **1154**, and traps the content **1156**. In an embodiment, the system then checks to determine if the user has elected to send an opt-out message to the opt-out servers' server logs **1158**, and, if so, the system looks up the opt out-message **1160**, and sends it along with the system installation date when the last socket is available. In either case, in an embodiment, the system next checks to determine if the user has elected to send a complaint message to the opt-out servers' network suppliers **1164**, and, if so, the system looks up the user defined network supplier message **1166** and sends it to the opt-out servers' network suppliers **1168**. The system may be further configured to check other user preferences **1170**, such as whether to dispose of the content **1172**, whether to save the content for online viewing **1174**, which may be performed by saving the URL to a system database **1178**, or whether to save the content for offline viewing **1176**, which may be performed by saving the content into a directory on the user's local machine **1180**. The system may then continue with the next message **1148**.

In an embodiment, the system sends remove email and other electronic message addressed to all sending email or other electronic message domains, reply email or other electronic message domains, response domains or unique identifiers, opt-out domains or unique identifiers and registrar contact information and unique identifiers and traps bounced remove email message and relates them to sending email domains or unique identifiers, reply email domains or unique identifiers, response domains or unique identifiers, opt-out domains or unique identifiers, registrar contact information and unique identifiers and saves bounced message data. In an embodiment, the system also gives the user the ability to modify or compose their own opt-out message and send messages to a domain's network supplier, contact and unique identifiers.

FIG. **12** is a flowchart **1200** of an exemplary embodiment for responding to a remove email link in accordance with an embodiment of the present invention. In an embodiment, the system parses messages for email accounts **1202**. When an email account is found, the system checks the user's preferences **1204** to determine the actions to take. In an embodiment, the possible actions include sending an email remove message to the sending account **1206**, sending an email remove message to a reply account **1212**, a response account **1216**, an opt-out account **1220**, the domain registrar(s) **1224**, or the sender's network provider(s) **1228**. Preferably, the system can be configured to perform more than one of these actions. Additionally, in an embodiment, the system can trap any messages that are bounced **1232**, saving the time, server type, IP address, domain name and other identification information **1234**. In an embodiment, the system will retry sending bounced messages **1236**, **1246**, and will check user preferences **1238** and save **1240** bounced message data in the system database **1244** or discard it **1242** before resuming the parsing of another message **1248**.

An exemplary user interface screen for user setup of electronic message reply to remove email links **5700** is depicted in FIG. **57**. In an embodiment, the user may select user preferences for replying to remove email links, such as selecting to send a remove email message to every contact in the unwanted message by selecting check box **5702**, or by selecting the recipients from the list of possible recipients by selecting the check box associated with each recipient **5704**. In an embodiment, the user may also select whether to save bounced message data by selecting check box **5706**. The user's preferences are not acted upon by an exemplary system until the user selects the submit button **5710**.

In an embodiment, the system tracks if sending electronic message or email domains, reply electronic message or email domains, response domains, opt-out domains and registrar contact information and unique identifiers are affiliated, and whether they send more email 10 days after an opt-out has been sent.

In an embodiment, the system also tracks received messages that require anonymous FTP log-ins or other electronic server log-ins for received message to display images, and other electronic content, and tracks if the receipt of these images generates new sender generated electronic messages or email. In a further embodiment, if these electronic messages result in new received electronic messages or email, the historic thread of the message is sent to the FTC or other user defined government agencies to lodge a complaint against the sender.

FIG. **58** is an exemplary user interface screen for user setup of electronic message tracking preferences. In an embodiment, the user interface screen **5800** provides the user with a listing of possible tracking options, each associated with a check box **5802**. Possible tracking options may include but are not limited to: track if sending, reply and opt-out domains are affiliated; track if more messages are received after 10 days; and track if anonymous FTP login generates new messages. In a further embodiment, the user may select to edit a message to be sent to the unwanted message sender's network supplier **5804**. In an embodiment, the user's preferences are not acted on by the system until the user selects the submit button **5806**.

A flowchart of an exemplary process for message tracking **1300** is provided in FIG. **13**. In an embodiment, the system parses new message information **1302**, and looks up the sending, reply, response, opt-out, physical address, and anonymous FTP information to determine if a message has been sent to the sender previously **1304**. If so, in an embodiment, the system compares the last message date to the present date **1306**, and if more than 10 days has elapsed **1310**, the system checks user preferences **1312**, and, if selected by the user, sends a user defined complaint email **1314** and adds the past message history information to the user defined email **1316** and user defined complaint entity **1318**.

In an embodiment, the system documents, responds to and removes spyware software that tracks the user's keystrokes,

behavior and activities. By parsing the user's machine for all known variants of spyware installed on the machine, in an embodiment, the system identifies and responds to the spyware. In addition, the system preferably identifies network addresses that the spyware is sending information to and receiving data from.

In a further embodiment, the system documents, responds to and removes adware software that tracks the user's keystrokes, behavior and activities and sends advertisements to the user's computer over the network. In an embodiment, by parsing the user's machine for all known variants of adware installed on the machine the system identifies and responds to the adware. In addition, the system preferably identifies network addresses that the adware is sending information to and receiving data from.

In an embodiment, the system documents, responds to and removes computer viruses and worm software that gives the user unexpected results knowingly and or unknowingly. In an embodiment, by parsing the user's machine for all known variants of viruses and worms installed on the machine the system identifies and responds to the viruses and/or worms, and identifies network addresses that the viruses and worms are received from.

In an embodiment, the system documents, responds to and removes botnet software that allows a remote user to control the user's machine manually and automatically over a computer network. In an embodiment, by parsing the user's machine for all known variants of a botnet installed on the machine, the system identifies and responds to the botnet, and identifies network addresses that the botnet is sending information to and receiving data from.

FIGS. **59**, **60**, **61** and **62** are an exemplary user interface screens for user setup and management of spyware **5900**, adware **6000**, virus and worm **6100**, and botnet **6200** reporting and removal preferences, respectively.

In an embodiment, the user is presented with a user interface screen **5900** for selecting spyware report preferences. For example, the user may be presented with a listing of spyware programs listing information regarding the spyware programs **5904**, with a check box associated with each spyware program **5902**. In an embodiment, the user instructs the system to remove the spyware program by selecting its associated checkbox **5902**. In a further embodiment, the user can instruct the system to remove all spyware by selecting the remove all spyware button **5906**. Additionally, in an embodiment, the user can elect to send an opt-out message to the sending server's log, which message can be customized by selecting the edit message check box **5908**. Similarly, in an embodiment, the user can elect to send a complaint message to a user specified entity, which message can also be customized by selecting the edit message check box **5910**. In an embodiment, the user's preferences do not take effect until the user selects the submit button **5912**.

In an embodiment, the user is presented with a user interface screen **6000** for selecting adware report preferences. For example, the user may be presented with a listing of adware programs listing information regarding the adware programs **6004**, with a check box associated with each adware program **6002**. In an embodiment, the user instructs the system to remove the adware program by selecting its associated checkbox **6002**. In a further embodiment, the user can instruct the system to remove all adware by selecting the remove all adware button **6006**. Additionally, in an embodiment, the user can elect to send an opt-out message to the sending server's log, which message can be customized by selecting the edit message check box **6008**. Similarly, in an embodiment, the user can elect to send a complaint message to a user specified entity, which message can also be customized by selecting the edit message check box **6010**. In an embodiment, the user's preferences do not take effect until the user selects the submit button **6012**.

In an embodiment, the user is presented with a user interface screen **6100** for selecting virus and worm report preferences. For example, the user may be presented with a listing of virus and worm programs listing information regarding the virus and worm programs **6104**, with a check box associated with each virus and worm program **6102**. In an embodiment, the user instructs the system to remove the virus or worm program by selecting its associated checkbox **6102**. In a further embodiment, the user can instruct the system to remove all viruses and worms by selecting the remove all viruses button **6106**. Additionally, in an embodiment, the user can elect to send an opt-out message to the sending server's log, which message can be customized by selecting the edit message check box **6108**. Similarly, in an embodiment, the user can elect to send a complaint message to a user specified entity, which message can also be customized by selecting the edit message check box **6110**. In an embodiment, the user's preferences do not take effect until the user selects the submit button **6112**.

In an embodiment, the user is presented with a user interface screen **6200** for selecting botnet report preferences. For example, the user may be presented with a listing of botnet programs listing information regarding the botnet programs **6204**, with a check box associated with each botnet program **6202**. In an embodiment, the user instructs the system to remove the botnet program by selecting its associated checkbox **6202**. In a further embodiment, the user can instruct the system to remove all botnet by selecting the remove all viruses button **6206**. Additionally, in an embodiment, the user can elect to send an opt-out message to the sending server's log, which message can be customized by selecting the edit message check box **6208**. Similarly, in an embodiment, the user can elect to send a complaint message to a user specified entity, which message can also be customized by selecting the edit message check box **6210**. In an embodiment, the user's preferences do not take effect until the user selects the submit button **6212**.

A flowchart of an exemplary embodiment for responding to spyware is provided in FIG. **14**. In an embodiment, the system looks up the spyware in a system database **1402**, and parses the incoming messages and machine for all known variants of the spyware **1404**. If the spyware and its variants are not found **1406** in a message or on the machine, the system preferably continues with the next message **1418**. Otherwise, in an embodiment, the system identifies **1408** the specific spyware variants found in the message or machine, identifies the network addresses the spyware is sending data to and receiving data from **1410** (hereinafter, the "spyware server"), saves this information in a system database **1412**, and removes the spyware and its components **1414**. In an embodiment, the system then checks user preferences to determine if the user has elected to ping the spyware server **1416**, trace the route to the spyware server **1420**, look up the spyware server's domain registrar **1422**, send an opt-out message to the spyware server's log **1424**, send a complaint message to a user defined third party **1426**. If none of these actions were selected by the user, then the system preferably continues with the next message **1418**.

Otherwise, in an embodiment, if the user has elected to ping the spyware server, it is pinged **1428**. In such an embodiment, if the ping is successful **1432**, the system then records the time expended by the pinging operation **1436**. Preferably, the system may be configured to wait for pinging success for

a predetermined duration of time, which may be user defined, and to retry the pinging operation up to a user defined number of times after waiting for a user defined amount of time **1430**, failing after the user defined number of pinging attempts have occurred **1434**.

Similarly, in an embodiment, if the user has elected to trace the route to the spyware server, the route is traced **1444**. In such an embodiment, if the trace is successful **1446**, the system then records the time it took to receive packets from the spyware server and to trace the route information **1442**. Preferably, the system may be configured to wait for route tracing success for a predetermined duration of time, which may be user defined, and to retry the route tracing operation up to a user defined number of times after waiting for a user defined amount of time **1438**, failing after the user defined number of attempts have been made to trace the route **1440**.

Likewise, in an embodiment, if the user has elected to, the spyware server's domain registrar may be looked up **1450**. In such an embodiment, if the look up is successful **1452**, the system then records the spyware server's registrar contact information **1456**. Preferably, the system may be configured to wait for the look up of the spyware server's domain registrar for a predetermined duration of time, which may be user defined, and to retry the look up operation up to a user defined number of times after waiting for a user defined amount of time **1448**, failing after the user defined number of attempts at look up have been made **1454**.

In an embodiment, if the user has so elected, the system may send an opt-out message. In such an embodiment, the system looks up the opt-out message in a system database **1458**, and may then determine if the user has elected to request content from the spyware server **1486**. If the user has elected to request content and the content request is successful **1488**, the system saves the date, time, server type, IP address, domain name and other identification information **1478**, and traps the content **1480**. Otherwise, if the content request is not successful, in an embodiment, the user may configure the system to retry the content request after a user defined delay, for a user defined number of times **1492**, failing after the user defined number of attempts at lookup have been made **1494**, the system continues **1496**. In an embodiment, if the content request is not successful, the system saves the date, time, server type, IP address, domain name and other identifiers **1464**, and sends a message to the spyware server log **1462**. In an embodiment, the system sends the opt-out message along with the system installation date when the last socket is available **1482**. In either case, in an embodiment, the system may be further configured to check other user preferences **1484**, such as whether to dispose of the content **1468**, whether to save the content for online viewing **1470**, which may be performed by saving the URL to a system database **1472**, or whether to save the content for offline viewing **1476**, which may be performed by saving the content into a directory on the user's local machine **1474**.

Similarly, in an embodiment, if the user has elected to send a complaint message to one or more user defined third parties, the system looks up the user defined messages to send **1460** and sends the messages to the user defined third parties **1466**.

A flowchart of an exemplary embodiment for responding to adware is presented in FIG. **15**. In an embodiment, the system looks up the adware in a system database **1502**, and parses incoming messages and machine for all known variants of the adware **1504**. If the adware and its variants are not found **1506** in a message or on the machine, the system preferably continues with the next message **1518**. Otherwise, in an embodiment, the system identifies **1508** the specific adware variants found on the user's machine, identifies the network addresses the adware is sending data to and receiving data from **1510** (hereinafter, the "adware server"), saves this information in a system database **1512**, and removes the adware and its components **1514**. In an embodiment, the system then checks user preferences to determine if the user has elected to ping the adware server **1516**, trace the route to the adware server **1520**, look up the adware server's domain registrar **1522**, send an opt-out message to the adware server's log **1524**, send a complaint message to a user defined third party **1526**. If none of these actions were selected by the user, then the system preferably continues with the next message **1518**.

Otherwise, in an embodiment, if the user has elected to ping the adware server, it is pinged **1528**. In such an embodiment, if the ping is successful **1532**, the system then records the time expended by the pinging operation **1536**. Preferably, the system may be configured to wait for pinging success for a predetermined duration of time, which may be user defined, and to retry the pinging operation up to a user defined number of times after waiting for a user defined amount of time **1530**, failing after the user defined number of pinging attempts have occurred **1534**.

Similarly, in an embodiment, if the user has elected to trace the route to the adware server, the route is traced **1544**. In such an embodiment, if the trace is successful **1546**, the system then records the time it took to receive packets from the adware server and to trace the route information **1542**. Preferably, the system may be configured to wait for route tracing success for a predetermined duration of time, which may be user defined, and to retry the route tracing operation up to a user defined number of times after waiting for a user defined amount of time **1538**, failing after the user defined number of attempts have been made to trace the route **1540**.

Likewise, in an embodiment, if the user has elected to, the adware server's domain registrar may be looked up **1550**. In such an embodiment, if the look up is successful **1552**, the system then records the adware server's registrar contact information **1556**. Preferably, the system may be configured to wait for the look up of the adware server's domain registrar for a predetermined duration of time, which may be user defined, and to retry the look up operation up to a user defined number of times after waiting for a user defined amount of time **1548**, failing after the user defined number of attempts at look up have been made **1554**.

In an embodiment, if the user has so elected, the system may send an opt-out message. In such an embodiment, the system looks up the opt-out message in a system database **1558**, and may then determine if the user has elected to request content from the adware server **1586**. If the user has elected to request content and the content request is successful **1588**, the system saves the date, time, server type, IP address, domain name and other identification information **1578**, and traps the content **1580**. Otherwise, if the content request is not successful, in an embodiment, the user may configure the system to retry the content request after a user defined delay, for a user defined number of times **1592**, failing after the user-defined number of attempts at lookup have been made **1594**, after which the system continues **1596**. In an embodiment, if the content request is not successful, the system saves the date, time, server type, IP address, domain name and other identifiers **1564**, and sends a message to the adware server log **1562**. In an embodiment, the system sends the opt-out message along with the system installation date when the last socket is available **1582**. In either case, in an embodiment, the system may be further configured to check other user preferences **1584**, such as whether to dispose of the content **1568**, whether to save the content for online viewing

1570, which may be performed by saving the URL to a system database **1572**, or whether to save the content for offline viewing **1576**, which may be performed by saving the content into a directory on the user's local machine **1574**.

Similarly, in an embodiment, if the user has elected to send a complaint message to one or more user defined third parties, the system looks up the user defined messages to send **1560** and sends the messages to the user defined third parties **1566**.

A flowchart of an exemplary embodiment for responding to viruses and worms is presented in FIG. **16**. In an embodiment, the system looks up the viruses and worms in a system database **1601**, and parses incoming messages and machine for all known variants of the viruses and worms **1602**. If the viruses and worms and their variants are not found **1604** in a message or on the machine, the system preferably continues with the next message **1616**. Otherwise, in an embodiment, the system identifies **1606** the specific virus and worm variants found in the message, identifies the network addresses the viruses and worms were received from **1608** (hereinafter, the "virus and worm server"), saves this information in a system database **1610**, and removes the viruses and worms and their components **1612**. In an embodiment, the system then checks user preferences to determine if the user has elected to ping the virus and worm server **1614**, trace the route to the virus and worm server **1620**, look up the virus and worm server's domain registrar **1622**, send an opt-out message to the virus and worm server's log **1624**, or send a complaint message to a user defined third party **1626**. If none of these actions were selected by the user, then the system preferably continues with the next message **1616**.

Otherwise, in an embodiment, if the user has elected to ping the virus and worm server, it is pinged **1628**. In such an embodiment, if the ping is successful **1632**, the system then records the time expended by the pinging operation **1636**. Preferably, the system may be configured to wait for pinging success for a predetermined duration of time, which may be user defined, and to retry the pinging operation up to a user defined number of times after waiting for a user defined amount of time **1630**, failing after the user defined number of pinging attempts have occurred **1634**.

Similarly, in an embodiment, if the user has elected to trace the route to the virus and worm server, the route is traced **1644**. In such an embodiment, if the trace is successful **1646**, the system then records the time it took to receive packets from the virus and worm server and to trace the route information **1642**. Preferably, the system may be configured to wait for route tracing success for a predetermined duration of time, which may be user defined, and to retry the route tracing operation up to a user defined number of times after waiting for a user defined amount of time **1638**, failing after the user defined number of attempts have been made to trace the route **1640**.

Likewise, in an embodiment, if the user has elected to, the virus and worm server's domain registrar may be looked up **1650**. In such an embodiment, if the look up is successful **1652**, the system then records the virus and worm server's registrar contact information **1656**. Preferably, the system may be configured to wait for the look up of the virus and worm server's domain registrar for a predetermined duration of time, which may be user defined, and to retry the look up operation up to a user defined number of times after waiting for a user defined amount of time **1648**, failing after the user defined number of attempts at look up have been made **1654**.

In an embodiment, if the user has so elected, the system may send an opt-out message. In such an embodiment, the system looks up the opt-out message in a system database **1658**, and may then determine if the user has elected to request content from the virus and worm server **1686**. If the user has elected to request content and the content request is successful **1688**, the system saves the date, time, server type, IP address, domain name and other identification information **1678**, and traps the content **1680**. Otherwise, if the content request is not successful, in an embodiment, the user may configure the system to retry the content request after a user defined delay, for a user defined number of times **1692**, failing after the user defined number of attempts at look up have been made **1694**, and the system continues **1696**. In an embodiment, if the content request is not successful, the system saves the date, time, server type, IP address, domain name and other identifiers **1664**, and sends a message to the virus and worm server log **1662**. In an embodiment, the system sends the opt-out message along with the system installation date when the last socket is available **1682**. In either case, in an embodiment, the system may be further configured to check other user preferences **1684**, such as whether to dispose of the content **1668**, whether to save the content for online viewing **1670**, which may be performed by saving the URL to a system database **1672**, or whether to save the content for offline viewing **1676**, which may be performed by saving the content into a directory on the user's local machine **1674**.

Similarly, in an embodiment, if the user has elected to send a complaint message to one or more user defined third parties, the system looks up the user defined messages to send **1660** and sends the messages to the user defined third parties **1666**.

A flowchart of an exemplary embodiment for responding to botnets is presented in FIG. **17**. In an embodiment, the system looks up the botnets in a system database **1702**, and parses incoming messages and machine for all known variants of the botnets **1704**. If the botnets and their variants are not found **1706** in a message or on the machine, the system preferably continues with the next message **1718**. Otherwise, in an embodiment, the system identifies **1708** the specific botnet variants found in the message or on the machine, identifies the network addresses the botnet sends to and receives from **1710** (hereinafter, the "botnet server"), saves this information in a system database **1712**, and removes the botnet and its components **1714**. In an embodiment, the system then checks user preferences to determine if the user has elected to ping the botnet server **1716**, trace the route to the botnet server **1720**, look up the botnet server's domain registrar **1722**, send an opt-out message to the botnet server's log **1724**, or send a complaint message to a user defined third party **1726**. If none of these actions were selected by the user, then the system preferably continues with the next message **1718**.

Otherwise, in an embodiment, if the user has elected to ping the botnet server, it is pinged **1728**. In such an embodiment, if the ping is successful **1732**, the system then records the time expended by the pinging operation **1736**. Preferably, the system may be configured to wait for pinging success for a predetermined duration of time, which may be user defined, and to retry the pinging operation up to a user defined number of times after waiting for a user defined amount of time **1730**, failing after the user defined number of pinging attempts have occurred **1734**.

Similarly, in an embodiment, if the user has elected to trace the route to the botnet server, the route is traced **1744**. In such an embodiment, if the trace is successful **1746**, the system then records the time it took to receive packets from the botnet server and to trace the route information **1742**. Preferably, the system may be configured to wait for route tracing success for a predetermined duration of time, which may be user defined, and to retry the route tracing operation up to a user defined number of times after waiting for a user defined amount of

time **1738**, failing after the user defined number of attempts have been made to trace the route **1740**.

Likewise, in an embodiment, if the user has elected to, the botnet server's domain registrar may be looked up **1750**. In such an embodiment, if the look up is successful **1752**, the system then records the botnet server's registrar contact information **1756**. Preferably, the system may be configured to wait for the look up of the botnet server's domain registrar for a predetermined duration of time, which may be user defined, and to retry the look up operation up to a user defined number of times after waiting for a user defined amount of time **1748**, failing after the user defined number of attempts at look up have been made **1754**.

In an embodiment, if the user has so elected, the system may send an opt-out message. In such an embodiment, the system looks up the opt-out message in a system database **1758**, and may then determine if the user has elected to request content from the botnet server **1786**. If the user has elected to request content and the content request is successful **1788**, the system saves the date, time, server type, IP address, domain name and other identification information **1778**, and traps the content **1780**. Otherwise, if the content request is not successful, in an embodiment, the user may configure the system to retry the content request after a user defined delay, for a user defined number of times **1792**, failing after the user defined number of attempts at look up have been made **1794**, and the system continues **1796**. In an embodiment, if the content request is not successful, the system saves the date, time, server type, IP address, domain name and other identifiers **1764**, and sends a message to the botnet server log **1762**. In an embodiment, the system sends the opt-out message along with the system installation date when the last socket is available **1782**. In either case, in an embodiment, the system may be further configured to check other user preferences **1784**, such as whether to dispose of the content **1768**, whether to save the content for online viewing **1770**, which may be performed by saving the URL to a system database **1772**, or whether to save the content for offline viewing **1776**, which may be performed by saving the content into a directory on the user's local machine **1774**.

Similarly, in an embodiment, if the user has elected to send a complaint message to one or more user defined third parties, the system looks up the user defined messages to send **1760** and sends the messages to the user defined third parties **1766**.

In an embodiment, the system offers a client version of its software for narrow band PDAs and cellular phones that is designed to gather unwanted message information as described above, and then either automatically or manually transfer the message information to a broad band or wired device equipped with the system software for further response processing.

FIG. **63** is user interface screen for user setup of a narrow-band client to transfer messages **6300** in accordance with an embodiment of the present invention. In an embodiment, the user is presented with a listing of received messages **6304**, identified, for example by the sender, or by some other criteria, each received message associated with a check box **6302**. The user in an embodiment may transfer the received messages either by selecting the check box associated with the message to be transferred and selecting the submit button **6308**, or by selecting the transfer all messages button **6306**.

In a further embodiment, FIG. **64** is an exemplary user interface screen for user setup of handling of messages transferred from a narrow-band client **6400**. In an embodiment, the user may be presented with a listing **6404** of the messages sent from the narrow-band client, each message associated with a check box **6402**. The user in an embodiment may respond to received messages either by selecting the check box associated with the message and selecting the submit button **6408**, or by selecting the respond to messages button **6406**.

A flowchart of an exemplary embodiment for personal digital assistants ("PDAs") and cellular telephones is provided in FIG. **18**. In an embodiment, a narrow-band PDA or cellular client **1802** is configured by the user to automatically **1804** or manually **1806** transfer messages to a wired or broadband client. Preferably, the system adds new messages for the narrow-band PDA or cellular client to the system database **1808**, where system responses are generated **1810**, as described above.

In an embodiment, the system queries DNS servers looking for how many domains are served by a specific IP address, IP family, router, or hosting company.

A flowchart of an exemplary embodiment for querying DNS servers for reverse lookup of messages hosted **1900** is presented in FIG. **19**. In an embodiment, the system may be configured to initiate reverse IP lookup **1902**, collect and save all domains hosted at a specific IP address to a system database **1904**, collect and save IP location and company contact information to a system database **1906**, and collect and save DNS server information, names and IP addresses to a system database **1908**.

In an embodiment of the invention, a super node server has the same functions as super node version of system software except it is configured at the email server and responds to administrator commands for email or electronic message users on its system, allowing for mass intercept and response based on administrator commands. In an embodiment, the system also allows for intercept and response based on recorded user intercepts. Also in an embodiment, each user of the super node server is a node.

A flowchart of an exemplary embodiment for use of super node servers **2000** is provided in FIG. **20**. In an embodiment, a corporate or public access email server **2002** may be used as a system super node server, or it may alternatively forward received emails to a system super node server. In either case, the system super node server may incorporate the same functions **2004** as a non-super node client node, as described above. In an embodiment, the system super node server may record user intercepts **2012** from corporate nodes **2014**. In an embodiment, the system super node administrator is preferably able to input users, domains, IP addresses, and IP families to intercept and respond **2006**, in a manner analogous with the user selections described above. In an embodiment, the system super node server intercepts and responds to unwanted messages on behalf of the company or on behalf of each individual user **2008**. The response level of the system super node is preferably controlled dynamically based on available bandwidth **2010**.

In an embodiment, the system is designed to give reports regarding all of the systems inputs and outputs to the user on screen, and also allows printing.

FIG. **21** is a flowchart of an exemplary embodiment for report generation and forwarding of data to a super node. In an embodiment, all data recorded by the system and user inputs are stored in a database and looked up **2102** when a report is to be generated. In an embodiment, the required data is then presented to a user **2104**, who may also check or change user preferences for report generation **2106**. Preferably, the user may also elect to send data to one or more super nodes, **2108**, **2110**.

In an embodiment, the system is designed to allow for user defined version updating at pre-determined times and on user command. FIG. **22** is a flowchart of an exemplary embodiment for updating system software **2200**. In an embodiment,

the user sets a user defined preference for the date for the system to check for a version update **2202**. In such an embodiment, on the update date the system preferably checks one of several available update sites **2204**, comparing the last update date **2206** with the available update to determine whether a new version of the system software is available **2208**. If a new version is available, the system preferably downloads the new version **2210**, and updates **2212** and restarts **2214** the system node.

In an embodiment, the system client software is designed to copy its preference settings and database for transfer to additional machines, install a new copy of the system software, automatically install the user settings and database to the user specific protected accounts, and download a new copy of the system software for installation, or make a copy of the system's download program available for distribution to other users for installation and purchase. In an embodiment, the system software is designed to be readily copied and provided to other users as a means of promulgating wide use of the system.

A flowchart of an exemplary embodiment for cloning **2300** an individual system node is provided in FIG. **23**. In an embodiment, the system receives a command to be cloned **2302** onto a second machine. For example, a user may provide the cloning command, or it may be provided by other means. In response to receiving the clone command, in an embodiment, the system duplicates the database, user settings and a setup application **2304**, compresses these **2306** into one or more files for transmission to the second machine **2308**, wherein the user of the second machine elects **2310** to install these files. In an embodiment, the files are then decompressed **2312** onto the second machine, where the system programs, database and user settings are then installed **2314**.

In an embodiment, the system is designed to be uninstalled from a machine upon user command, to subsequently remove all associated files. A flowchart of an exemplary embodiment for uninstalling system files **2400** is provided in FIG. **24**. In an embodiment, the system running on a machine receives a uninstall command **2402**, and then proceeds to stop all node processes **2404**, destroy system database and settings files **2406**, remove all related files from the machine **2408**, and removes the system node **2410**, completing the uninstall process **2412**.

In an embodiment, the user is also provided with an opt-out data extraction tool, designed to give message senders an easy way to comply with system opt-out requests. For example, by parsing the message senders' server logs for the system opt-out information, and either deleting system opt-out addresses directly or extracting the opt-out data and importing directly to the message senders' database, the user may access the opt out feature somewhat more on their own terms.

A flowchart of an exemplary embodiment for an opt-out data extraction tool **2500** is provided in FIG. **25**. In an embodiment, a user registers and selects preferences **2502** for the opt-out extraction tool similarly as with the system, as described above. In an embodiment, the user may select the message sender's web server type and version **2504**, and the log file **2506**, which is then parsed for system messages **2508**. In an embodiment, user preferences are then checked **2510** to determine whether the user wants the entire message extracted to an ASCII file **2512**, or whether to extract only electronic addresses to an ASCII file **2516**, checking user preferences **2518** again to determine whether the user wants to automatically purge electronic addresses from the system's marketing database **2520**, in which case a connection is opened to the system's database to purge the address **2522**. In an embodiment, in either instance, the extracted data is then saved **2514**.

In an embodiment, the system is designed to, when idle, compare its database for both statistical and syntactical patterns, and to save and report the data to related super nodes based on user defined preferences.

A flowchart of an exemplary embodiment for pattern recognition checking **2600** is presented in FIG. **26**. In an embodiment, the user may elect to run the system in pattern recognition mode **2602**. Preferably the system checks for system idle time **2604**, and rechecks **2606** until the system is idle before executing pattern recognition. In an embodiment, during the pattern recognition process, the system compares all collected and input data **2608**, looking for statistical and syntactical patterns **2610**, saving discovered patterns to a database **2612**. In an embodiment, the pattern data may be displayed to the user **2614**, and if the user prefers **2616**, the pattern data may be sent to a super node for aggregate reporting **2618**, **2620**. In an embodiment, the system would then continue pattern searching **2622**.

In an embodiment, the system may use a user's inputted zip or postal code, and associates it with the specific entities to send complaints to. In such an embodiment, if the system does not have the appropriate address to send complaint messages to when it logs on for an update, it gives a message to the update server requesting the appropriate complaint addresses. Preferably, when the appropriate complaint addresses becomes available the system sends a message to the user's machine informing it to update.

A flowchart of an exemplary embodiment for postal code look-up functionality **2700** is provided in FIG. **27**. In an embodiment, the user may enter the user's postal code into the system, which uses it for database look-up for complaint email addressing **2702**. In such an embodiment, if the complaint email or electronic address is found **2704**, the system auto-configures the user preferences to use the found address **2706**, and then continues normal operation **2708**. Otherwise, in an embodiment, the system displays an address not found message **2710**, and allows the user to enter complaint addresses manually **2712**, which are then written to a database **2714**.

In an embodiment, the system may allow the user to select and deselect specific unwanted message senders accounts, domains, IP addresses, and IP families to either intercept and respond to or stop the intercept and response to the same.

An exemplary user interface screen for user setup and management of unwanted messages from selected accounts **6600** is provided in FIG. **66**. In an embodiment, the user is presented with a listing of unwanted message sender accounts, each account associated with a domain, IP address, and IP family, as well as a check box associated with each account, domain, IP address, and IP family **6602**. In operation, a user may uncheck the check box associated with each account, domain, IP address, or IP family in order to begin receiving messages from the unchecked account, domain, IP address, or IP family. In an embodiment, if the user wants to allow messages from an unlisted account, they can enter the account in an edit box **6604**, and select it by selecting the find button **6606**, at which time the system will update the listing to include the information for the entered account. In an embodiment, the user may exit the user interface screen without the system acting on the user's selections by selecting the cancel button **6610**, or may cause the system to act on the user's selection by selecting the submit button **6608**.

Similarly, an exemplary user interface screen for user setup and management of unwanted messages from domains **6700**

is provided in FIG. **67**. In an embodiment, the user is presented with a listing of unwanted message sender domains, each domain associated with an account, IP address, and IP family, as well as a check box associated with each domain, account, IP address, and IP family **6702**. In operation, a user may uncheck the check box associated with each domain, account, IP address, or IP family in order to begin receiving messages from the unchecked domain, account, IP address, or IP family. In an embodiment, if the user wants to allow messages from an unlisted domain, they can enter the domain in an edit box **6704**, and select it by selecting the find button **6706**, at which time the system will update the listing to include the information for the entered domain. In an embodiment, the user may exit the user interface screen without the system acting on the user's selections by selecting the cancel button **6710**, or may cause the system to act on the user's selection by selecting the submit button **6708**.

Likewise, an exemplary user interface screen for user setup and management of unwanted messages from IP addresses **6800** is provided in FIG. **68**. In an embodiment, the user is presented with a listing of unwanted message sender IP addresses, each IP address associated with an account, domain, and IP family, as well as a check box associated with each IP address, account, domain, and IP family **6802**. In operation, a user may uncheck the check box associated with each IP address, account, domain, or IP family in order to begin receiving messages from the unchecked IP address, account, domain, or IP family. In an embodiment, if the user wants to allow messages from an unlisted IP address, they can enter the IP address in an edit box **6804**, and select it by selecting the add button **6808**, or may search for it using the find button **6806**, at which time the system will update the listing to include the information for the entered IP address. In an embodiment, the user may exit the user interface screen without the system acting on the user's selections by selecting the cancel button **6814**, or may cause the system to act on the user's selection by selecting the submit button **6812**. In an embodiment, the upload button **6810** may be used to immediately share new settings with the local super node.

An exemplary user interface screen for user setup and management of unwanted messages from IP families **6900** is provided in FIG. **69**. In an embodiment, the user is presented with a listing of unwanted message sender IP families, each IP family associated with an account, domain, and IP address, as well as a check box associated with each IP family, account, domain, and IP address **6902**. In operation, a user may uncheck the check box associated with each IP family, account, domain, or IP address in order to begin receiving messages from the unchecked IP family, account, domain, or IP address. In an embodiment, if the user wants to allow messages from an unlisted IP family, they can enter the IP family in an edit box **6906**, and select it by selecting the add button **6910**, or search for it using the find button **6908**, at which time the system will update the listing to include the information for the entered IP family. In an embodiment, the user may exit the user interface screen without the system acting on the user's selections by selecting the cancel button **6916**, or may cause the system to act on the user's selection by selecting the submit button **6914**. In an embodiment, the upload button **6912** may be used to immediately share new settings with the local super node.

A flowchart of an exemplary embodiment for unwanted message user preference management **2800** is provided in FIG. **28**. In an embodiment, the user may initiate a settings review **2802** by instructing the system to display any of unwanted message sender user accounts, **2804**, domains **2806**, IP addresses **2808** or IP families **2810** to the user. In an embodiment, the system displays the results of the user-initiated review in an order, such as by ascending alphabetical order **2812**, and the user may search for an account, domain or IP address **2814** for display. Preferably, the user may review the user preferences for the displayed accounts, domains, IP addresses and families and make any necessary changes **2816**, which may then be saved to a system database, and all future messages will be handled by the system according to the changes **2820**. In addition to changes, the system preferably allows the user to add individual accounts, or groups of accounts, domains and IP addresses **2818**, which are likewise saved **2820**.

In an embodiment, the system supports each system user to share relevant unwanted message information with other users using a peer to peer file sharing and grid architecture. In such an embodiment, the system allows each user to set a threshold as to when to preemptively intercept sender, domain, IP address and IP family messages based on other users' preferences.

Preferably, as each user chooses to intercept, respond to and classify specific unwanted messages, the system shares that information with super nodes on the network, which, in turn, share that aggregate information with other super nodes and nodes. Each user of the system may be given the choice of becoming either a node or super node, and can switch from one to the other at the will of the user. In an embodiment, the system allows for file sharing and polling of both the nodes and super nodes to facilitate information sharing and propagation between nodes and super nodes.

In an embodiment, super nodes act as primary repositories of related sender information to share with nodes and other super nodes. In such an embodiment, both super nodes and nodes send and receive related sender account, domain, IP address and IP family aggregate data to nodes and other super nodes. Preferably, as super nodes appear on the network, they seek out other and least busy super nodes to share information, update databases, look up tables and synchronize information with each other at user determined time intervals. Also, as Nodes appear on the network, they seek out super nodes to share, update databases, look up tables and synchronize information with each other at user determined time intervals.

In an embodiment, super nodes send out to nodes gathered system data for processing to facilitate the tabulation of system response, intercept data and classification. In an embodiment, that data is collected and either tabulated by the super node or sent in data fragments to nodes for tabulation and return to the related super nodes to create aggregate system response, intercept and classification data for distribution to super nodes and nodes for system propagation. Preferably, super nodes can act as repositories for the entire system network or portions of the repositories and individual elements.

In an embodiment, users may be given the option of having the user population classifications, either by percentage or by quantities of aggregate data, dynamically add or subtract sender accounts, domains, IP addresses and IP families for interception and response.

Also in an embodiment, super nodes act as repositories for node and super node updates to the system by sharing with all super nodes and nodes the latest update version. When a node contacts a super node for a new software update, the node requests and the super node makes available the latest system update. In addition, when a node contacts a super node and has a newer version of the system software than the super

node has, it shares with the super node the network address of all known super nodes having the current version of the system software.

In an embodiment, when super nodes contact each other to compare software versions and when one super node has a newer version of the system software, it makes that update available to the other super nodes.

An exemplary user interface screen for user setup of interception and response to messages community setup **7000** is provided in FIG. **70**. In an embodiment, a user is presented with a user interface allowing the user to manage its messages community preferences. For example, in an embodiment, the user may instruct the system how long to wait before contacting a super node **7002**, and may also configure the system to make the user's system into a super node **7004**. In an embodiment, the user can instruct the system to intercept messages when a user defined percentage of the community has judged the sender's messages to be unwanted from a specific sender **7010**, sender domain **7014**, sender IP address **7018**, or sender IP family **7022**. Similarly, in an embodiment, the user may select the period of time during which to intercept messages from a specific sender **7012**, sender domain **7016**, sender IP address **7020**, or sender IP family **7024**. In an embodiment, the user's selections are not acted on by the system until the user selects the submit button **7026**.

A flowchart of an exemplary embodiment for grid architecture and peer-to-peer node management **2900** is provided in FIG. **29**. In an embodiment, a node or super node **2902** checks a table for known node and super node addresses **2904** on the Internet or other network **2906**, and attempts to contact the first super node on the list **2908**. In an embodiment, if the contact attempt fails, the node will then attempt to contact, in turn, the next super node **2912**, all known super nodes in the table in order **2914**, another node **2916**, and all other known nodes in the table in order **2918**. In an embodiment, if no contact attempt has been successful, then the system begins searching for any node by searching the local IP family **2920**, or finally by searching all IP families **2922**. In an embodiment, when a contact attempt has been successful, the node and super node table is updated **2910**.

A schematic representation of a node and a super node **3000** is provided in FIG. **30**. In an embodiment, a user may configure their system to act as a node **3002** or as a super node **3004**.

A flowchart of an exemplary embodiment for setting message intercept thresholds **3100** is provided in FIG. **31**. In an embodiment, the system may use an intercept interface **3102** to set quantity or percentage level thresholds **3104** for message intercept. In such an embodiment, the threshold percentage or threshold quantity is compared to the current local system community ranking **3106** for specified accounts, domains, IP addresses and IP families **3108**, and the client node intercept thresholds may be adjusted by the user **3110**.

A flowchart of an exemplary embodiment for data sharing between a node and a super node **3200** is provided in FIG. **32**. In an embodiment, a node **3202** may share intercept data **3206** with a super node **3208** at a share data time threshold **3204**. In an embodiment, the super node may then aggregate the data **3210** from multiple nodes, and share the aggregate data with the node **3212**. In such an embodiment, a node **3212** may then use the aggregate data **3214** to update its user preferences **3216** or adjust node intercept thresholds **3218**.

A flowchart of an exemplary embodiment for updating node subscription information **3300** is provided in FIG. **33**. In an embodiment, a node **3302** may update its related message intercept group subscription **3304**, including the subscription start date/end date information **3306** with a super node **3310** by sending a subscription update message to the super node **3308**.

A flowchart of an exemplary embodiment for node and super node system data exchange **3400** is provided in FIG. **34**. In an embodiment, system data **3404** may be sent by a node **3402** to a super node **3406**, or by a super node **3406** to a node **3402**.

A schematic diagram **3500** of exemplary data exchanges for a node and a super node is provided in FIG. **35**. In an embodiment, a node **3502** may send various data, such as current user intercept data, request grid data packets, or return grid packet data to a super node **3504**. Also in an embodiment, a super node **3504** may send various data, such as current community settings or grid data packets to a node **3502**.

A schematic diagram **3600** of exemplary data exchanges for several nodes and a super node is provided in FIG. **36**. In an embodiment, an exemplary super node **3618** may exchange data with multiple subscribing nodes **3602**, **3604**, **3606**, **3608**, **3610**, **3612**, **3614**, **3616**.

A schematic diagram **3700** of exemplary data exchanges between several super nodes is provided in FIG. **37**. In an embodiment, multiple super nodes **3702**, **3704**, **3706**, **3708**, **3710** may share and synchronize data, and share aggregate information with each other using a variety of methods and communication routes. For example, super nodes may directly communicate with other super nodes, or may alternatively communicate with other super nodes through a node.

A schematic diagram **3800** of exemplary system for version checking between a node and a super node is provided in FIG. **38**. In an embodiment, a node **3802** may communicate with a super node **3804**, such as by sending a request for the latest system version or checking system version information. Similarly, in an embodiment, a super node **3804** may send the latest system version information or share the latest system version with a node **3802**.

A schematic diagram **3900** of exemplary system version location checking between a node and a super node is provided in FIG. **39**. In an embodiment, a node **3902** may check its system version against and share location information with a super node **3904**, and the super node **3904** may provide the latest system version information to and request the location of the latest system version from a node **3902**.

A schematic diagram of an exemplary embodiment of an exemplary system **4000** for version checking between super nodes is provided in FIG. **40**. In an embodiment one super node **4002** may check its system version against and request the latest system version from another super node **4004**, which may provide its latest system version information to and share the latest system version with the first super node **4002**.

In an embodiment, the system allows users to choose to receive, schedule and control special interest offers or messages on an anonymous basis via the system.

In an embodiment, the system allows each user to set a threshold based on time or quantity of messages received, and when to receive and stop receiving subscribed message senders' messages. In an embodiment, the message sender sends one message to the system, and the system, in turn, sends messages to subscribed users of the system using a peer to peer file sharing and grid architecture. In an embodiment, users can subscribe and unsubscribe at will.

An exemplary user interface screen for user setup of special interest subject information desired **7100** is provide in FIG. **71**. In an embodiment, the user is presented with a user interface screen **7100** that includes a listing of special interest subjects, each special interest subject associated with a check

box and selector controls for setting the time and days when the user wants to allow messages pertaining to each special interest subject to be received anonymously **7102**. In such an embodiment, the user elects to receive special interest subject messages by checking the check box associated with that subject and selecting the submit button **7104**. Special interest subjects may include but are not limited to antiques, cellular phones, computers, credit cards, drugs/medical, and investments.

In an embodiment, the system allows marketing subscribers to schedule, send and manage special interest offers or messages via the system. In a further embodiment, the system may allow marketing subscribers to send messages through the system and set parameters based on time, day, date or quantity of messages through a message gateway. In an embodiment, marketers may start and stop marketing messages on the system at will.

In an embodiment, the marketing user's payment is processed through the payment gateway. Once payment is approved or received, the system sends messages through the message staging gateway to the requested message subscription super nodes to distribute marketing messages to users who have subscribed to receive special interest offers or messages on an anonymous basis via the System.

A schematic diagram of an exemplary embodiment for choosing messages and special interest offerings **4100** is provided in FIG. **41**. In an embodiment, a node **4102** may receive related requested message group information **4114** from a super node **4112**, and using a message subscription interface **4104**, send to the super node **4112** a message request group subscription **4106**, including a subscription start and end date **4108**, via a subscription update message **4110**. In a further embodiment, a super node **4112** may forward the node subscription information to a requested message subscription super node **4116**, which, in turn, may forward a marketer message **4118** pertaining to the requested subscription to the super node **4112**. In an embodiment, marketer subscribers **4120** communicate with requested message subscription super nodes **4116** using a message gateway **4122**, a payment gateway **4124**, and a message staging gateway **4126**.

In an embodiment, a node can be run in an operating system that runs on top of Windows or other client operating systems as an application in a proprietary programming language. Additionally, in an embodiment, the system will write data files in a proprietary, encrypted format.

An exemplary schematic diagram of a memory map for a node operating system is presented in FIG. **65**. In an embodiment, the system operating system **6502**, including email **6504**, browser **6506**, FTP **6508** and other protocol **6510** components occupy memory space not overlapping with the memory space of the user machine's operating system **6512**, such as WINDOWS®, LINUX™, or OSX®. In an embodiment the system operating system **6502** and the modem, network, or other communications pipes **6514** communicate via the TCP/IP stack **6516**, thereby not involving the operating system **6512**.

In an embodiment, the system allows for potential re-sellers of the system software to apply for re-seller status and choose from a variety of ways to be paid in either cash and or premiums.

In such an embodiment, once a re-seller of the system is approved they are contacted by the company via email or other electronic means. The re-seller may then be instructed to download a copy of the system re-seller software in which the re-seller's unique re-seller identifier is embedded.

In an embodiment, the system also allows for re-sellers to recruit and receive payment for the recruitment of new re-sellers of the system by allowing potential new users of the system to also become re-sellers.

Also in an embodiment, re-sellers can freely distribute copies of the system software with their unique re-seller identifier embedded for potential new users to purchase and or potential new re-sellers to apply for to distribute the system software.

In an embodiment, the payment process for new users of the system may be realized using Secure Socket Layer encryption, wherein the buyer inputs their approved payment method directly into the system or purchases the system through an e-commerce Internet web site and the system software is downloaded therefrom.

In an embodiment, re-sellers are given a choice to be paid in either cash and or premiums at the end of each selling period.

Although the invention herein has been described with reference to particular embodiments, it is to be understood that these embodiments are merely illustrative of the principles and applications of the present invention. It is therefore to be understood that numerous modifications may be made to the illustrative embodiments and that other arrangements may be devised without departing from the spirit and scope of the present invention as defined by the appended claims.

The invention claimed is:

1. A method for responding to an incoming electronic message, the method executed by a processor and associated computer memory configured to perform the method comprising the steps of:

determining whether the incoming electronic message is relevant or irrelevant to a user using a user profile containing information regarding relevant and irrelevant messages;

if the incoming electronic message is irrelevant to the user, parsing the incoming electronic message for message origination information, wherein the message origination information parsed includes one or more items selected from the group comprising: a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP login for message image, physical address and telephone numbers; and

replying to the message using the message origination information, wherein replying comprises:

measuring and capturing sender suggested content for the user to review at a time convenient to the user; and

repeat replying to the message at a first user-specified interval of time or until the sender suggested content is successfully measured and captured within a second user-specified interval of time or until a reply is sent a user-specified number of times.

2. The method according to claim **1**, wherein the determining and parsing steps are performed as the incoming electronic messages are received.

3. The method according to claim **1**, wherein the determining and parsing steps are performed at a time other than when the incoming electronic message is received.

4. A method for responding to an incoming electronic message, the method executed by a processor and associated computer memory configured to perform the method comprising the steps of:

determining whether the incoming electronic message is relevant or irrelevant to a user using a user profile containing information regarding relevant and irrelevant messages;

if the incoming electronic message is irrelevant to the user, parsing the incoming electronic message for message origination information, wherein the message origination information parsed includes one or more items selected from the group comprising: a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP login for message image, physical address and telephone numbers; and

replying to the message using the message origination information, wherein replying comprises:

sending at least one message to a relevant third party entity in accordance with a user configuration; and,

repeat replying to the message at a first user-specified interval of time or until a response indicating receipt of the at least one message is received within a second user-specified interval of time or until a reply is sent a user-specified number of times.

5. The method according to claim **4**, wherein the relevant third party entity is a government entity.

6. The method according to claim **1**, further comprising identifying, tracking variants, and removing any software that records a user's keystrokes, displays banners or other computer advertising, or reports the user's behavior to a third party.

7. The method according to claim **6**, further comprising identifying the network address the software was received from and any network address the user information is being sent to.

8. The method according to claim **1**, further comprising identifying, tracking and removing software that enables a user's computer to be controlled remotely.

9. A method for responding to an incoming electronic message, the method executed by a processor and associated computer memory configured to perform the method comprising the steps of:

determining whether the incoming electronic message is relevant or irrelevant to a user using a user profile containing information regarding relevant and irrelevant messages;

if the incoming electronic message is irrelevant to the user, parsing the incoming electronic message for message origination information, wherein the message origination information parsed includes one or more items selected from the group comprising: a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP login for message image, physical address and telephone numbers; and

replying to the message using the message origination information, wherein replying comprises:

measuring the time it takes for an electronic packet to be sent to and subsequently received by the sender of the incoming electronic message; and,

repeat replying to the message at a first user-specified interval of time or until the time for an electronic packet to be sent to and received by the sender of the incoming electronic message is measured within a second user-specified interval of time or until a reply is sent a user-specified number of times.

10. A method for responding to an incoming electronic message, the method executed by a processor and associated computer memory configured to perform the method comprising the steps of:

determining whether the incoming electronic message is relevant or irrelevant to a user using a user profile containing information regarding relevant and irrelevant messages;

if the incoming electronic message is irrelevant to the user, parsing the incoming electronic message for message origination information, wherein the message origination information parsed includes one or more items selected from the group comprising: a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP login for message image, physical address and telephone numbers; and

replying to the message using the message origination information, wherein replying comprises:

tracing the route to a sender of the incoming electronic message; and,

repeat replying to the message at a first user-specified interval of time or until the route is successfully traced within a second user-specified interval of time or until a reply is sent a user-specified number of times.

11. A method for responding to an incoming electronic message, the method executed by a processor and associated computer memory configured to perform the method comprising the steps of:

determining whether the incoming electronic message is relevant or irrelevant to a user using a user profile containing information regarding relevant and irrelevant messages;

if the incoming electronic message is irrelevant to the user, parsing the incoming electronic message for message origination information, wherein the message origination information parsed includes one or more items selected from the group comprising: a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP login for message image, physical address and telephone numbers; and

replying to the message using the message origination information, wherein replying comprises:

determining a web server or electronic content repository used to send the electronic message and sending the web server or electronic content repository a response message; and

repeat replying to the message at a first user-specified interval of time or until a response indicating receipt of the response message to the web server or electronic content repository is received within a second user-specified interval of time or until a reply is sent a user-specified number of times.

12. A method for responding to an incoming electronic message, the method executed by a processor and associated computer memory configured to perform the method comprising the steps of:

determining whether the incoming electronic message is relevant or irrelevant to a user using a user profile containing information regarding relevant and irrelevant messages;

if the incoming electronic message is irrelevant to the user, parsing the incoming electronic message for message origination information, wherein the message origination information parsed includes one or more items selected from the group comprising: a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP login for message image, physical address and telephone numbers; and

replying to the message using the message origination information, wherein replying comprises:

determining an email domain web server, a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP used to send the electronic message and sending a first response message to each server log, email address, or domain, as determined, requesting that no additional electronic messages be sent; and

repeat replying to the message at a first user-specified interval of time or until a second response message indicating that the first response message requesting that no additional electronic messages be sent is received within a second user-specified interval of time or until a reply is sent a user-specified number of times.

13. The method according to claim **1**, further comprising sharing information regarding irrelevant messages with other users by the user.

14. The method according to claim **13**, wherein the sharing is performed using a peer-to-peer file system and grid architecture.

15. The method according to claim **1**, further comprising sharing by the user information regarding the irrelevant messages with one or more super nodes on a network.

16. A message response system comprising

an electronic message receiver node comprising a processor operably connected to a computer memory and a network communication device, the processor and memory configured to operate the network communication device and to receive at least one message over the network communication device; the network communication device further in communication with a network; the electronic message receiver node being associated with a user; the processor and memory further configured to perform the steps of:

determining whether the at least one message is relevant or irrelevant to the user using a user profile containing information regarding relevant and irrelevant messages;

if the message is irrelevant, parsing the at least one message for message origination information, wherein the message origination information parsed includes one or more items selected from the group comprising: a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP login for message image, physical address and telephone numbers; and

replying to the message using the message origination information, wherein replying comprises:

measuring and capturing sender suggested content for the user to review at a time convenient to the user; and

repeat replying to the message at a first user-specified interval of time or until the sender suggested content is measured and captured within a second user-specified interval of time or until a reply is sent a user-specified number of times.

17. The system according to claim **16**, wherein the processor and memory perform the step of determining whether the at least one message is relevant or irrelevant to the user using a user profile containing information regarding relevant and irrelevant messages.

18. The system according to claim **16**, wherein the determining and parsing steps are performed in real time.

19. The system according to claim **16**, wherein the determining and parsing steps are performed at a time other than when the at least one message is received.

20. The system according to claim **16**, wherein the processor and memory are further configured to perform the step comprising sending the at least one message to a relevant third party entity in accordance with a user configuration.

21. The system according to claim **20**, wherein the relevant third party entity is a governmental entity.

22. The system according to claim **16**, wherein the processor and memory are further configured to perform the steps comprising: identifying and tracking variants of the incoming electronic message.

23. The system according to claim **16**, wherein the processor and memory are further configured to perform the step comprising removing any software that records the user's keystrokes, displays banners or other computer advertising, or reports the user's behavior to a third party.

24. The system according to claim **23**, wherein the processor and memory are further configured to perform the step comprising identifying the network address the software was received from and any network address any user information is being sent to.

25. The system according to claim **16**, wherein the processor and memory are further configured to perform the steps comprising: identifying, tracking and removing software that enables the node to be controlled remotely.

26. The system according to claim **25**, wherein the processor and memory are further configured to perform the steps comprising: measuring and capturing sender suggested content for the user to review at a time convenient to the user.

27. The system according to claim **24**, wherein the processor and memory are further configured to perform the step comprising measuring the time it takes for an electronic packet to be sent and subsequently received by the network address the software was received from.

28. The system according to claim **26**, wherein the processor and memory are further configured to perform the step comprising tracing the route to a sender of the at least one message.

29. The system according to claim **16**, wherein replying further comprises:

determining a web server or electronic content repository used to send the electronic message, and sending the web server or electronic content repository a response message.

30. The system according to claim **16**, wherein replying further comprises:

determining an email domain web server used to send the electronic message, sending a response to the email domain's web server log requesting that no further messages be sent.

31. The system according to claim **16**, wherein the processor and memory are further configured to perform the step comprising sharing information regarding irrelevant messages with other nodes.

32. The system according to claim 31, wherein the sharing is performed using a peer-to-peer file system and grid architecture.

33. The system according to claim 17, wherein the processor and memory are further configured to perform the step comprising sharing information regarding the irrelevant messages with one or more super nodes on the network.

34. The system according to claim 16, wherein the processor and memory are further configured for

generating a copy of the computer software used to configure the processor and memory of the electronic message receiver node;

embedding a unique identification for the user into the generated copy of the computer software; and,

providing the generated copy of the computer software to a second user.

35. The system according to claim 34, further comprising an account manager, wherein the account manager receives a notification from a machine associated with the second user, the notification indicating the unique identifier embedded in the generated copy of the computer software, the account manager further performing the steps of billing the second user for the generated copy of the computer software, collecting the billed amount, providing a commission of a portion of billed amount to the user.

36. The method according to claim 1, further comprising:

contacting a sending web server or electronic content repository using the message origination information; and

if the sending web server or electronic content repository is unable to respond, continuing to attempt contacting the sending web server or electronic content repository after a time interval defined by the user.

37. A method for responding to an incoming electronic message, the method executed by a processor and associated computer memory configured to perform the method comprising the steps of:

determining whether the incoming electronic message is relevant or irrelevant to a user using a user profile containing information regarding relevant and irrelevant messages;

if the incoming electronic message is irrelevant to the user, parsing the incoming electronic message for message origination information, wherein the message origination information parsed includes one or more items selected from the group comprising: a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP login for message image, physical address and telephone numbers; and

replying to the message using the message origination information, wherein replying comprises:

determining if the electronic message includes a telephone number and calling any telephone number provided in the message; and

repeat replying to the message at a first user-specified interval of time or until the call to the provided telephone number is answered within a second user-specified interval of time or until a reply is sent a user-specified number of times.

38. A method for responding to an incoming electronic message, the method executed by a processor and associated computer memory configured to perform the method comprising the steps of:

determining whether the incoming electronic message is relevant or irrelevant to a user using a user profile containing information regarding relevant and irrelevant messages;

if the incoming electronic message is irrelevant to the user, parsing the incoming electronic message for message origination information, wherein the message origination information parsed includes one or more items selected from the group comprising: a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP login for message image, physical address and telephone numbers; and

replying to the message using the message origination information, wherein replying comprises:

determining all links provided by the electronic message; and,

when a sending link is provided, sending a response message to the sending link to cease sending messages;

when a reply link is provided, sending a response message to the reply link to cease sending messages;

when a response link is provided, sending a response message to the response link to cease sending messages;

when an opt out link is provided, sending a response message to the opt out link to cease sending messages; and,

repeat replying to the message at a first user-specified interval of time or until a response to a message sent to a provided link is received within a second user-specified interval of time or until a reply is sent a user-specified number of times.

39. A method for responding to an incoming electronic message, the method executed by a processor and associated computer memory configured to perform the method comprising the steps of:

determining whether the incoming electronic message includes or links to any computer spyware, adware, virus, worm, or botnet;

when the incoming electronic message includes or links to any computer spyware, adware, virus, worm, or botnet, parsing the incoming electronic message for message origination information, wherein the message origination information parsed includes one or more items selected from the group comprising: a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP login for message image, physical address and telephone numbers; and

replying to the message using the message origination information, wherein replying comprises any of:

pinging the electronic message's server;

tracing a route to the electronic message's sender;

looking up the electronic message's sender's registrar and sending a message to the registrar indicating the incoming electronic message's contents;

sending an opt-out message to an opt-out address;

sending a complaint message to the sender; or

sending a complaint message to a third-party entity; and,

repeat replying to the message at a first user-specified interval of time or until each reply is complete and each message sent in reply is responded to within a second user-specified interval of time or until a reply is sent a user-specified number of times.

40. A method for responding to an incoming electronic message, the method executed by a processor and associated computer memory configured to perform the method comprising the steps of:

determining whether the incoming electronic message is relevant or irrelevant to a user using a user profile containing information regarding relevant and irrelevant messages;

if the incoming electronic message is irrelevant to the user, parsing the incoming electronic message for message origination information, wherein the message origination information parsed includes one or more items selected from the group comprising: a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP login for message image, physical address and telephone numbers; and

replying to the message using the message origination information, wherein replying comprises:

performing a reverse IP lookup for an IP address associated with the electronic message, and collecting and saving information from the reverse IP lookup, said information comprising any of:

all domains hosted at the IP address, IP address location, IP address company contact information, related DNS servers, names and IP addresses; and,

repeat replying to the message at a first user-specified interval of time or until all information is collected from the reverse IP lookup within a second user-specified interval of time or until a reply is sent a user-specified number of times.

41. A method for responding to an incoming electronic message, the method executed by a processor and associated computer memory configured to perform the method comprising the steps of:

determining whether the incoming electronic message is relevant or irrelevant to a user using a user profile containing information regarding relevant and irrelevant messages;

if the incoming electronic message is irrelevant to the user, parsing the incoming electronic message for message origination information, wherein the message origination information parsed includes one or more items selected from the group comprising: a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP login for message image, physical address and telephone numbers;

blocking all messages from the incoming message's individual sender and replying to the message using the message origination information, wherein replying comprises any of:

pinging the electronic message's server;

tracing a route to the electronic message's sender;

looking up the electronic message's sender's registrar and sending a message to the registrar indicating the incoming electronic message's contents;

sending an opt-out message to an opt-out address;

sending a complaint message to the sender; or

sending a complaint message to a third-party entity; and,

repeat replying to the message at a first user-specified interval of time or until each reply is complete and each message sent in reply is responded to within a second user-specified interval of time or until a reply is sent a user-specified number of times.

42. A method for responding to an incoming electronic message, the method executed by a processor and associated computer memory configured to perform the method comprising the steps of:

determining whether the incoming electronic message is relevant or irrelevant to a user using a user profile containing information regarding relevant and irrelevant messages;

if the incoming electronic message is irrelevant to the user, parsing the incoming electronic message for message origination information, wherein the message origination information parsed includes one or more items selected from the group comprising: a sending email address, a sending email domain, a unique message identifier, a reply email address, a reply email domain, a response domain, a response email, a response URL, an opt out URL, an opt out email, and an anonymous FTP login for message image, physical address and telephone numbers;

determining the sending web server or electronic content repository, determining subsequent electronic links on the sender supplied destination URL and/or electronic network addresses, and replying to the message at the sending web server or electronic content repository, subsequent electronic links on the sender supplied destination URL and/or electronic network addresses, wherein replying comprises any of:

pinging the electronic message's server,

tracing a route to the electronic message's sender,

forwarding the electronic message,

sending an opt-out message to an opt-out address,

sending a complaint message to the sender, or

sending a complaint message to a third-party entity; and,

repeat replying to the message at a first user-specified interval of time or until each reply is complete and each message sent in reply is responded to within a second user-specified interval of time or until a reply is sent a user-specified number of times.

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