

### III. A PARTICULAR SERVICE AND/OR INFORMATION REQUEST AND ASSOCIATED SERVICE AND/OR INFORMATION RESPONSE ON THE NETWORK

#### B. THE SERVER PS (18)

FIG. 58 shows a typical particular one of the service and/or information requests

5  $IQ_1...IQ_n$  (28), designated as the service and/or information request  $IQ_n$  (28), having queries  $QQ_{n1}...QQ_{nm}$  (53), corresponding server addresses  $AQ_{n1}...AQ_{nm}$  (54), and optional instructions  $VJ_{n1}...VJ_{nk}$  (52). The server addresses  $AQ_{n1}...AQ_{nm}$  (54) and the optional instructions  $VJ_{n1}...VJ_{nk}$  (52) may be optional, and may depend upon the user interface  $I_n$  (14), and/or other information resident within the server PS (18).

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FIG. 59 shows the particular service and/or information request  $IQ_n$  (28) parsed, processed, and/or formatted into current request group  $QA_{nc}$  (50), request groups  $QA_{n1}...QA_{nz}$  (51), and optional instructions  $VJ_{n1}...VJ_{nk}$  (52), and utilization of information therefrom to make the requests  $Q_{n1}...Q_{nm}$  (29), obtain the responses

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$R_{n1}...R_{nm}$  (32), and incorporate information therefrom into the particular service and/or information response  $IR_n$  (34). The current request group  $QA_{nc}$  (50) may be any particular one the request groups  $QA_{n1}...QA_{nz}$  (51), which may be selected by the user  $U_n$  (12).

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Upon receipt of the service and/or information requests  $IQ_1...IQ_n$  (28) at the server PS (18), communicated therefrom the corresponding clients  $C_1...C_n$  (16), the server PS (18) parses, processes, and/or formats each of the service and/or information requests

**IQ<sub>1</sub>...IQ<sub>n</sub> (28)** into the corresponding current request groups **QA<sub>1c</sub>...QA<sub>nc</sub> (50)** having corresponding queries **QQ<sub>11</sub>...QQ<sub>nm</sub> (53)** and corresponding server addresses **AQ<sub>11</sub>...AQ<sub>nm</sub> (54)** to open connections with and make the requests **Q<sub>11</sub>...Q<sub>nm</sub> (29)** thereof the servers **S<sub>1</sub>...S<sub>z</sub> (20)**, in accordance with the designation scheme which  
5 designates the certain ones of the servers **S<sub>1</sub>...S<sub>z</sub> (20)** to be communicated with corresponding to the requests **Q<sub>11</sub>...Q<sub>nm</sub> (29)** as the corresponding server designations **S<sub>11</sub>...S<sub>nm</sub> (30)**, shown for a particular one of the service and/or information requests **IQ<sub>n</sub> (28)** in FIG. 59.

10 The server **PS (18)** also parses, processes, and/or formats each of the service and/or information requests **IQ<sub>1</sub>...IQ<sub>n</sub> (28)** into the corresponding request groups **QA<sub>11</sub>...QA<sub>nz</sub> (51)** having corresponding other queries **QQ<sub>1a</sub>...QQ<sub>nz</sub> (55)** and corresponding other server addresses **AQ<sub>1a</sub>...AQ<sub>nz</sub> (56)**, and the corresponding optional instructions **VJ<sub>111</sub>...VJ<sub>nk</sub> (52)**, also shown for a particular one of the service  
15 and/or information requests **IQ<sub>n</sub> (28)** in FIG. 59.

The server **PS (18)** opens connections with and makes the requests **Q<sub>n1</sub>...Q<sub>nm</sub> (29)** thereof the servers **S<sub>1</sub>...S<sub>z</sub> (20)**, in accordance with the designation scheme which designates the certain ones of the servers **S<sub>1</sub>...S<sub>z</sub> (20)** to be communicated with  
20 corresponding to the requests **Q<sub>n1</sub>...Q<sub>nm</sub> (29)** as the corresponding server designations **S<sub>11</sub>...S<sub>nm</sub> (30)**, shown for the particular one of the service and/or information requests **IQ<sub>n</sub> (28)** corresponding to the corresponding queries **QQ<sub>n1</sub>...QQ<sub>nm</sub> (53)** and the

corresponding server addresses  $AQ_{n1} \dots AQ_{nm}$  (54) therein the current request group  $QA_{nc}$  (50).

The servers  $S_1 \dots S_z$  (20) corresponding to the server designations  $S_{11} \dots S_{nm}$  (30),

5 designated in accordance with the designation scheme which designates the certain ones of the servers  $S_1 \dots S_z$  (20) to be communicated with corresponding to the requests  $Q_{n1} \dots Q_{nm}$  (29) as the corresponding server designations  $S_{11} \dots S_{nm}$  (30), respond to the requests  $Q_{n1} \dots Q_{nm}$  (29) with the corresponding responses  $R_{n1} \dots R_{nm}$  (32).

10 The server  $PS$  (18) parses, and/or processes, and/or formats, and/or groups, and/or organizes each of the responses  $R_{n1} \dots R_{nm}$  (32) received from the servers  $S_1 \dots S_z$  (20) corresponding to the server designations  $S_{n1} \dots S_{nm}$  (30) into corresponding addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57).

15 The server  $PS$  (18) may also make additional optional requests  $QP_{n1} \dots QP_{nm}$  (58) of the optional database 41, which may be optionally resident within the server  $PS$  (18), and which may reply with the corresponding additional optional responses  $RA_{n1} \dots RA_{nm}$  (40). The server  $PS$  (18) parses, and/or processes, and/or formats, and/or groups, and/or organizes each of the additional optional responses  $RA_{n1} \dots RA_{nm}$  (40) into corresponding response information groups  $RC_{n1} \dots RC_{nm}$  (59).

Information from the current request group  $QA_{nc}$  (50) having the corresponding queries  $QQ_{n1} \dots QQ_{nm}$  (53) and the corresponding server addresses  $AQ_{n1} \dots AQ_{nm}$  (54) is

formulated into a corresponding request pointer/address group **QZ<sub>n</sub> (60)** having pointers/addresses **PG<sub>n1</sub>...PG<sub>nz</sub> (61)** associated therewith.

Each of the pointers/addresses **PG<sub>n1</sub>...PG<sub>nz</sub> (61)** are directed to point/address  
5 corresponding addressable query pointer/address groups **QG<sub>n1</sub>...QG<sub>nz</sub> (62)** associated therewith, which aid in obtaining information and/or services therefrom certain ones of addressable response information groups **RG<sub>n1</sub>...RG<sub>nm</sub> (57)** to be incorporated thereinto addressable query information groups **GI<sub>n1</sub>...GI<sub>nz</sub> (63)**.

10 Grouping and/or sorting criteria may be incorporated thereinto the optional instructions **VJ<sub>n1</sub>...VJ<sub>nk</sub> (52)**, which may be entered thereinto the user interface **I<sub>n</sub> (14)** therethrough the user input **UI<sub>n</sub> (25)** by the user **U<sub>n</sub> (12)**. Grouping and/or sorting criteria may additionally and/or alternatively be optionally resident within the server **PS (18)** and/or the client **C<sub>n</sub> (16)**.

15 The grouping and/or sorting criteria gives the user **U<sub>n</sub> (12)** the ability to formulate the query information groups **GI<sub>n1</sub>...GI<sub>nz</sub> (63)** and the way in which information and/or services from the addressable response information groups **RG<sub>n1</sub>...RG<sub>nm</sub> (57)** is presented to the user **U<sub>n</sub> (12)** therethrough the user interface **I<sub>n</sub> (14)**.

20 Each of the addressable query pointer/address groups **QG<sub>n1</sub>...QG<sub>nz</sub> (62)** are associated therewith the corresponding ones of the addressable query information groups **GI<sub>n1</sub>...GI<sub>nz</sub> (63)**. The addressable query pointer/address group **QG<sub>n1</sub> (62)** is, thus,

associated therewith the addressable query information group  $GI_{n1}$  (63); the addressable query pointer/address group  $QG_{n2}$  (62) is, thus, associated therewith the addressable query information group  $GI_{n2}$  (63); the addressable query pointer/address group  $QG_{nz}$  (62) is, thus, associated therewith the addressable query information group  $GI_{nz}$  (63), and so on.

Each of the addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62) is formulated based upon the grouping and/or sorting criteria, which may be incorporated thereinto the optional instructions  $VJ_{n1}...VJ_{nk}$  (52), and/or which may additionally and/or alternatively optionally be resident within the server  $PS$  (18) and/or the client  $C_n$  (16), and/or information within the current request group  $QA_{nc}$  (50).

Each of the addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62) has pointers/addresses  $PP_{n11}...PP_{nmr}$  (64) directed to address/point information therein the addressable response information groups  $RG_{n1}...RG_{nm}$  (57) based upon the grouping and/or sorting criteria, which may be incorporated thereinto the optional instructions  $VJ_{n1}...VJ_{nk}$  (52), and/or which may additionally and/or alternatively optionally be resident within the server  $PS$  (18) and/or the client  $C_n$  (16), and/or the corresponding queries  $QQ_{n1}...QQ_{nm}$  (53), and/or the corresponding server addresses  $AQ_{n1}...AQ_{nm}$  (54) within the current request group  $QA_{nc}$  (50).

Information and/or services within each of the addressable response information groups  $RG_{n1}...RG_{nm}$  (57) is addressed therewith the pointers/addresses  $PP_{n11}...PP_{nmr}$  (64)

therefrom the query pointer/address groups  $QG_{n1}...QG_{nz}$  (62), and information and/or services therefrom the addressable response information groups  $RG_{n1}...RG_{nm}$  (57) is incorporated therein to the addressable query information groups  $GI_{n1}...GI_{nz}$  (63) corresponding to the pointers/addresses  $PP_{n11}...PP_{nmr}$  (64), which are formulated by the addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62), in accordance with the grouping and/or sorting criteria.

The corresponding other queries  $QQ_{na}...QQ_{nz}$  (55) and the corresponding other server addresses  $AQ_{na}...AQ_{nz}$  (56) therein the corresponding request groups  $QA_{n1}...QA_{nz}$  (51) may be used for other ones of the requests  $Q_{n1}...Q_{nm}$  (29), and may be incorporated into the service and/or information response  $IR_n$  (34), as part of other information  $OI_n$  (65), for future use.

Each of the addressable query information groups  $GI_{n1}...GI_{nz}$  (63) is incorporated therein to the service and/or information group  $G_n$  (35). The service and/or information group  $G_n$  (35) and the other information  $OI_n$  (65) are incorporated therein to the service and/or information response  $IR_n$  (34).

The optional instructions  $VJ_{n1}...VJ_{nk}$  (52) may be used by the server  $PS$  (18) in making the requests  $Q_{n1}...Q_{nm}$  (29) and/or the additional optional requests  $QP_{n1}...QP_{nm}$  (58) of the optional database 41, and/or in processing, formatting, grouping, and organizing the responses  $R_{n1}...R_{nm}$  (32) from the ones of the servers  $S_1...S_z$  (20) corresponding to the server designations  $S_{n1}...S_{nm}$  (30), and/or the

additional optional responses  $RA_{n1}...RA_{nm}$  (40), into the corresponding service and/or information responses  $IR_1...IR_n$  (34), for grouping and/or sorting criteria instructions, and/or may be used for other purposes.

- 5 FIG. 60 is a schematic representation of the particular service and/or information request  $IQ_n$  (28) parsed, processed, and/or formatted into a current request group  $QA_n$  (50), request groups  $QA_{n1}...QA_{nz}$  (51), and corresponding optional instructions  $VJ_{n1}...VJ_{nk}$  (52), and utilization of information therefrom to make the requests  $Q_{n1}...Q_{nm}$  (29), obtain the responses  $R_{n1}...R_{nm}$  (32), and incorporate information
- 10 therefrom into the particular service and/or information response  $IR_n$  (34), having simpler grouping/sorting that may be used additionally and/or alternatively to that of FIG. 59.

- The user  $U_n$  (12) is typically given the option therethrough the optional instructions
- 15  $VJ_{n1}...VJ_{nk}$  (52) as to the grouping and/or sorting criteria to be entered thereinto the user interface  $I_n$  (14) therethrough the user input  $UI_n$  (25) by the user  $U_n$  (12). The user  $U_n$  (12) is typically given the choice as to the grouping and/or sorting criteria to be used as in FIG. 59, and/or the grouping and/or sorting criteria of FIG. 60.

- 20 Information from the current request group  $QA_{nc}$  (50) having the corresponding queries  $QQ_{n1}...QQ_{nm}$  (53) and the corresponding server addresses  $AQ_{n1}...AQ_{nm}$  (54) is formulated into a corresponding request pointer/address group  $QY_n$  (68) having pointers/addresses  $PF_{n11}...PF_{nmr}$  (69) associated therewith, as shown in FIG. 60.

Each of the pointers/addresses  $PF_{n1} \dots PF_{nmr}$  (69) are directed to point/address the corresponding addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57), and aid in obtaining information and/or services therefrom the corresponding addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) to be incorporated therein to the addressable query information groups  $GI_{n1} \dots GI_{nz}$  (63), as shown in FIG. 60.

The grouping and/or sorting criteria allow the user  $U_n$  (12) to direct the server  $PS$  (18) and/or the client  $C_n$  (16) to sort information and/or services therefrom the responses the responses  $R_{n1} \dots R_{nm}$  (32) and/or the additional optional responses  $RA_{n1} \dots RA_{nm}$  (40) therefrom the optional database 41, such as, for example, by category, query, group, page, order of importance, ascending and/or descending order, alphabetically and/or numerically, value, price, and/or other characteristics, and/or to combine and/or interleave the information and/or services therefrom the responses the responses  $R_{n1} \dots R_{nm}$  (32) and/or the additional optional responses  $RA_{n1} \dots RA_{nm}$  (40) one with the other, such as, for example, by order of relevance and/or other parameters.

FIG. 61 shows the particular service and/or information response  $IR_n$  (34) having a service and/or information group  $G_n$  (35), additional request links  $SL_{n1} \dots SL_{nw}$  (71), optional order form 72, optional additional advertisements and/or links 73, optional hidden information 74, and the optional service and/or information entry request form  $IE_n$  (38).



The service and/or information group **G<sub>n</sub> (35)** has the query information groups **GI<sub>n1</sub>...GI<sub>nz</sub> (63)**, optional database response groups **75**, and optional additional advertisements and/or links **76**.

- 5 The additional request links **SL<sub>n1</sub>...SL<sub>nw</sub> (71)** allow the user **U<sub>n</sub> (12)** to make additional optional selections, based upon information and/or services previously requested by the user **U<sub>n</sub> (12)**. The additional request links **SL<sub>n1</sub>...SL<sub>nw</sub> (71)**, which are optional, may typically have Current Group/Next Group/Previous Group/Group Number Links, Server Names in Each Group, Queries in Each Group, Current Page/Next Page/Previous Page/Page Number Links, Search Display/Link and/or Description Placement/Interleave/Separate, and Link Description Options/Summary/Minimize. Other additional ones of the additional requests links **SL<sub>n1</sub>...SL<sub>nw</sub> (71)** and/or combinations thereof may also be incorporated thereto the service and/or information response **IR<sub>n</sub> (34)**.
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- The optional order form **72** allows direct placement and/or confirmation of orders and/or purchases therewith the servers **S<sub>1</sub>...S<sub>z</sub> (20)** and/or the optional servers **SO<sub>1</sub>...SO<sub>p</sub> (22)**, which reside on the network **24**. The user **U<sub>n</sub> (12)** may enter the order placement thereto the user interface **I<sub>n</sub> (14)** therethrough the user input **UI<sub>n</sub> (25)**, and receive order confirmation therethrough the user interface **I<sub>n</sub> (14)**. The client **C<sub>n</sub> (16)** may communicate the order placement therefrom the user interface **I<sub>n</sub> (14)** thereto the server **PS (18)**, which may communicate the order placement thereto the servers **S<sub>1</sub>...S<sub>z</sub> (20)** and/or the optional servers **SO<sub>1</sub>...SO<sub>p</sub> (22)**. The server **PS (18)**
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FIG. 62

may alternatively and/or additionally communicate the order confirmation received therefrom the servers  $S_1...S_z$  (20) and/or the optional servers  $SO_1...SO_p$  (22) thereto the client  $C_n$  (16), which may communicate the order confirmation thereto the user interface  $I_n$  (14) for presentation to the user  $U_n$  (12). The order placement and/or the order confirmation may be stored within the server  $PS$  (18) and/or the client  $C_n$  (16). The order placement and/or the order confirmation is typically secure, and may be encrypted, and is typically communicated using secure communications means.

**C. CERTAIN ONES OF THE CLIENTS**

10 Certain ones of the clients  $C_1...C_n$  (16) may alternatively and/or additionally make the requests  $Q_{11}...Q_{nm}$  (29) thereof the servers  $S_1...S_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $S_1...S_z$  (20) to be communicated with corresponding to the requests  $Q_{11}...Q_{nm}$  (29), and formulate the corresponding user service and/or information response  $ir_1...ir_n$  (36), as previously  
15 described.

FIG. 62 shows a typical particular one of the user service and/or information requests  $iq_1...iq_n$  (27), designated as the user service and/or information request  $iq_n$  (27), having the queries  $QQ_{n1}...QQ_{nm}$  (53), the corresponding server addresses  $AQ_{n1}...AQ_{nm}$  (54), and the optional instructions  $VJ_{n1}...VJ_{nk}$  (52). The server addresses  $AQ_{n1}...AQ_{nm}$  (54) and the optional instructions  $VJ_{n1}...VJ_{nk}$  (52) may be

optional, and may depend upon the user interface  $I_n$  (14), and/or other information resident within the client  $C_n$  (16).

FIG. 63 shows the particular user service and/or information request  $iq_n$  (27) parsed, processed, and/or formatted into the current request group  $QA_{nc}$  (50), the request groups  $QA_{n1}...QA_{nz}$  (51), and the corresponding optional instructions  $VJ_{n1}...VJ_{nk}$  (52), and utilization of information therefrom to make the requests  $Q_{n1}...Q_{nm}$  (29), obtain the responses  $R_{n1}...R_{nm}$  (32), and incorporate information therefrom into the particular user service and/or information response  $ir_n$  (36);

The server  $PS$  (18) makes the requests  $Q_{11}...Q_{nm}$  (29) thereof of the servers  $S_1...S_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $S_1...S_z$  (20) to be communicated with corresponding to the requests  $Q_{11}...Q_{nm}$  (29) as the corresponding server designations  $S_{11}...S_{nm}$  (30), as shown in FIG. 59, and certain ones of the clients  $C_1...C_n$  (16) may additionally and/or alternatively make the requests  $Q_{11}...Q_{nm}$  (29) thereof of the servers  $S_1...S_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $S_1...S_z$  (20) to be communicated with corresponding to the requests  $Q_{11}...Q_{nm}$  (29) as the corresponding server designations  $S_{11}...S_{nm}$  (30), as shown in FIG. 63.

The clients  $C_n$  (16) may parse, process, and/or format the user service and/or information requests  $iq_n$  (27) and/or organize and/or group information and/or services therefrom the addressable response information groups  $RG_{n1}...RG_{nm}$  (57) thereinto

the addressable query information groups  $\mathbf{GI}_{n1} \dots \mathbf{GI}_{nz}$  (63) substantially the same as the server  $\mathbf{PS}$  (18) parses, processes, and/or formats the service and/or information requests  $\mathbf{IQ}_n$  (28) therefrom the addressable response information groups  $\mathbf{RG}_{n1} \dots \mathbf{RG}_{nm}$  (57) therein to the addressable query information groups  $\mathbf{GI}_{n1} \dots \mathbf{GI}_{nz}$  (63), except that the client  $\mathbf{C}_n$  (16) may organize the addressable query information groups  $\mathbf{GI}_{n1} \dots \mathbf{GI}_{nz}$  (63) therein to the user service and/or information response  $\mathbf{ir}_n$  (36), as in FIG. 63, and the server  $\mathbf{PS}$  (18) organizes the addressable query information groups  $\mathbf{GI}_{n1} \dots \mathbf{GI}_{nz}$  (63) therein to the corresponding service and/or information response  $\mathbf{IR}_n$  (34), as in FIG. 59.

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Upon receipt of the user service and/or information requests  $\mathbf{iq}_1 \dots \mathbf{iq}_n$  (27) at the corresponding clients  $\mathbf{C}_1 \dots \mathbf{C}_n$  (16), certain ones of the corresponding clients  $\mathbf{C}_1 \dots \mathbf{C}_n$  (16) may parse, process, and/or format the corresponding user service and/or information requests  $\mathbf{iq}_1 \dots \mathbf{iq}_n$  (27) into the corresponding current request groups  $\mathbf{QA}_{1c} \dots \mathbf{QA}_{nc}$  (50) having the corresponding queries  $\mathbf{QQ}_{11} \dots \mathbf{QQ}_{nm}$  (53) and the corresponding server addresses  $\mathbf{AQ}_{11} \dots \mathbf{AQ}_{nm}$  (54) to open connections with and make the requests  $\mathbf{Q}_{11} \dots \mathbf{Q}_{nm}$  (29) thereof of the servers  $\mathbf{S}_1 \dots \mathbf{S}_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $\mathbf{S}_1 \dots \mathbf{S}_z$  (20) to be communicated with corresponding to the requests  $\mathbf{Q}_{11} \dots \mathbf{Q}_{nm}$  (29) as the corresponding server designations  $\mathbf{S}_{11} \dots \mathbf{S}_{nm}$  (30), shown for a particular one of the user service and/or information requests  $\mathbf{iq}_1 \dots \mathbf{iq}_n$  (27) in FIG. 63.

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The corresponding clients  $C_1 \dots C_n$  (16) may also parse, process, and/or format the corresponding user service and/or information response  $ir_1 \dots ir_n$  (36) into the corresponding request groups  $QA_{11} \dots QA_{nz}$  (51) having the corresponding other queries  $QQ_{1a} \dots QQ_{nz}$  (55) and the corresponding other server addresses  $AQ_{1a} \dots AQ_{nz}$  (56), and the corresponding optional instructions  $VJ_{111} \dots VJ_{nk}$  (52), also shown for a particular one of the user service and/or information requests  $iq_n$  (27) in FIG. 63.

A particular one of the corresponding clients  $C_1 \dots C_n$  (16), designated as the client  $C_n$  (16), may open connections with and make the requests  $Q_{n1} \dots Q_{nm}$  (29) thereof the servers  $S_1 \dots S_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $S_1 \dots S_z$  (20) to be communicated with corresponding to the requests  $Q_{n1} \dots Q_{nm}$  (29) as the corresponding server designations  $S_{11} \dots S_{nm}$  (30), shown for the particular one of the user service and/or information requests  $iq_n$  (27) corresponding to the corresponding queries  $QQ_{n1} \dots QQ_{nm}$  (53) and the corresponding server addresses  $AQ_{n1} \dots AQ_{nm}$  (54) therein the current request group  $QA_{nc}$  (50).

The servers  $S_1 \dots S_z$  (20) corresponding to the server designations  $S_{11} \dots S_{nm}$  (30), designated in accordance with the designation scheme which designates the certain ones of the servers  $S_1 \dots S_z$  (20) to be communicated with corresponding to the requests  $Q_{n1} \dots Q_{nm}$  (29) as the corresponding server designations  $S_{11} \dots S_{nm}$  (30), respond to the requests  $Q_{n1} \dots Q_{nm}$  (29) with the corresponding responses  $R_{n1} \dots R_{nm}$  (32).

The client  $C_n$  (16) may parse, and/or process, and/or format, and/or group, and/or organize each of the responses  $R_{n1} \dots R_{nm}$  (32) received from the servers  $S_1 \dots S_z$  (20) corresponding to the server designations  $S_{n1} \dots S_{nm}$  (30) into the corresponding addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57).

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The client  $C_n$  (16) may also make additional optional requests  $QP_{n1} \dots QP_{nm}$  (58) of the optional database 42, which may be optionally resident within the client  $C_n$  (16), and which may reply with the corresponding additional optional responses  $RA_{n1} \dots RA_{nm}$  (40). The client  $C_n$  (16) may parse, and/or process, and/or format, and/or group, and/or organize each of the additional optional responses  $RA_{n1} \dots RA_{nm}$  (40) into the corresponding response information groups  $RC_{n1} \dots RC_{nm}$  (59).

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Now again, for the client  $C_n$  (16), information from the current request group  $QA_{nc}$  (50) having the corresponding queries  $QQ_{n1} \dots QQ_{nm}$  (53) and the corresponding server addresses  $AQ_{n1} \dots AQ_{nm}$  (54) is formulated into the corresponding request pointer/address group  $QZ_n$  (60) having the pointers/addresses  $PG_{n1} \dots PG_{nz}$  (61) associated therewith.

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Now again, for the client  $C_n$  (16), each of the pointers/addresses  $PG_{n1} \dots PG_{nz}$  (61) are directed to point/address the corresponding addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62) associated therewith, which aid in obtaining information and/or services therefrom certain ones of the addressable response information groups

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**RG<sub>n1</sub>...RG<sub>nm</sub> (57)** to be incorporated therein the addressable query information groups **GI<sub>n1</sub>...GI<sub>nz</sub> (63)**.

Yet again, for the client **C<sub>n</sub> (16)**, grouping and/or sorting criteria may be incorporated  
5 thereinto the optional instructions **VJ<sub>n1</sub>...VJ<sub>nk</sub> (52)**, which may be entered therein to  
the user interface **I<sub>n</sub> (14)** therethrough the user input **UI<sub>n</sub> (25)** by the user **U<sub>n</sub> (12)**.  
Grouping and/or sorting criteria may additionally and/or alternatively optionally  
resident within the server **PS (18)** and/or the client **C<sub>n</sub> (16)**.

10 Now again, the grouping and/or sorting criteria gives the user **U<sub>n</sub> (12)** the ability to  
formulate the query information groups **GI<sub>n1</sub>...GI<sub>nz</sub> (63)** and the way in which  
information from the addressable response information groups **RG<sub>n1</sub>...RG<sub>nm</sub> (57)** is  
presented to the user **U<sub>n</sub> (12)** therethrough the user interface **I<sub>n</sub> (14)**.

15 Now again, for the client **C<sub>n</sub> (16)**, each of the addressable query pointer/address groups  
**QG<sub>n1</sub>...QG<sub>nz</sub> (62)** are associated therewith the corresponding ones of the addressable  
query information groups **GI<sub>n1</sub>...GI<sub>nz</sub> (63)**. Each of the addressable query  
pointer/address groups **QG<sub>n1</sub>...QG<sub>nz</sub> (62)** is formulated based upon the grouping  
and/or sorting criteria, which may be incorporated therein to the optional instructions  
20 **VJ<sub>n1</sub>...VJ<sub>nk</sub> (52)**, and/or which may additionally and/or alternatively optionally be  
resident within the server **PS (18)** and/or the client **C<sub>n</sub> (16)**, and/or information within  
the current request group **QA<sub>nc</sub> (50)**.

Now again, for the client  $C_n$  (16), each of the addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62) has pointers/addresses  $PP_{n11}...PP_{nmr}$  (64) directed to address/point services and/or information therein the addressable response information groups  $RG_{n1}...RG_{nm}$  (57) based upon the grouping and/or sorting criteria, which may  
5 be incorporated therein the optional instructions  $VJ_{n1}...VJ_{nk}$  (52), and/or which may additionally and/or alternatively optionally be resident within the server  $PS$  (18) and/or the client  $C_n$  (16), and/or the corresponding queries  $QQ_{n1}...QQ_{nm}$  (53), and/or the corresponding server addresses  $AQ_{n1}...AQ_{nm}$  (54) within the current request group  $QA_{nc}$  (50).

10

Yet again, for the client  $C_n$  (16), the information and/or services therein each of the addressable response information groups  $RG_{n1}...RG_{nm}$  (57) is addressed therewith the pointers/addresses  $PP_{n11}...PP_{nmr}$  (64) therefrom the query pointer/address groups  $QG_{n1}...QG_{nz}$  (62), and information and/or services therefrom the addressable response  
15 information groups  $RG_{n1}...RG_{nm}$  (57) is incorporated therein the addressable query information groups  $GI_{n1}...GI_{nz}$  (63) corresponding to the pointers/addresses  $PP_{n11}...PP_{nmr}$  (64), which are formulated by the addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62), in accordance with the grouping and/or sorting criteria.

20 Yet again, for the client  $C_n$  (16), the corresponding other queries  $QQ_{na}...QQ_{nz}$  (55) and the corresponding other server addresses  $AQ_{na}...AQ_{nz}$  (56) therein the corresponding request groups  $QA_{n1}...QA_{nz}$  (51) may be used for other ones of the



requests  $Q_{n1} \dots Q_{nm}$  (29), and may be incorporated into the user service and/or information response  $ir_n$  (36), as part of other information  $OI_n$  (65), for future use.

Now again, for the client  $C_n$  (16), each of the addressable query information groups  
5  $GI_{n1} \dots GI_{nz}$  (63) is incorporated thereto the service and/or information group  $G_n$  (35). The service and/or information group  $G_n$  (35) and the other information  $OI_n$  (65) are incorporated thereto the service and/or information response  $IR_n$  (34).

The optional instructions  $VJ_{n1} \dots VJ_{nk}$  (52) may be used by the client  $C_n$  (16), in  
10 making the requests  $Q_{n1} \dots Q_{nm}$  (29) and/or the additional optional requests  $QP_{n1} \dots QP_{nm}$  (58) of the optional database 42, and/or in processing, formatting, grouping, and organizing the responses  $R_{n1} \dots R_{nm}$  (32) from the ones of the servers  $S_1 \dots S_z$  (20) corresponding to the server designations  $S_{n1} \dots S_{nm}$  (30), and/or the additional optional responses  $RA_{n1} \dots RA_{nm}$  (40), into user service and/or information  
15 response  $ir_n$  (36), for grouping and/or sorting criteria instructions, and/or may be used for other purposes.

FIG. 64 is a schematic representation of the particular user service and/or information request  $iq_n$  (27) parsed, processed, and/or formatted into the current request group  
20  $QA_{nc}$  (50), the request groups  $QA_{n1} \dots QA_{nz}$  (51), and the corresponding optional instructions  $VJ_{n1} \dots VJ_{nk}$  (52), and utilization of information therefrom to make the requests  $Q_{n1} \dots Q_{nm}$  (29), obtain the responses  $R_{n1} \dots R_{nm}$  (32), and incorporate information therefrom into the particular user service and/or information response  $ir_n$

(36), having simpler grouping/sorting that may be used additionally and/or alternatively to that of FIG. 63.

The user  $U_n$  (12) is typically given the option therethrough the optional instructions  
5  $VJ_{n1} \dots VJ_{nk}$  (52) as to the grouping and/or sorting criteria to be entered therein to the user interface  $I_n$  (14) therethrough the user input  $UI_n$  (25) by the user  $U_n$  (12). The user  $U_n$  (12) is typically given the choice as to the grouping and/or sorting criteria of FIG. 63, and/or the grouping and/or sorting criteria of FIG. 64.

10 Now again, the client  $C_n$  (16) may parse, process, and/or format the user service and/or information requests  $iq_n$  (27) and/or organize and/or group information and/or services therefrom the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) therein to the addressable query information groups  $GI_{n1} \dots GI_{nz}$  (63) substantially the same as the server  $PS$  (18) parses, processes, and/or formats the service and/or information  
15 requests  $IQ_n$  (28) therefrom the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) therein to the addressable query information groups  $GI_{n1} \dots GI_{nz}$  (63), except that the client  $C_n$  (16) may organize the addressable query information groups  $GI_{n1} \dots GI_{nz}$  (63) therein to the user service and/or information response  $ir_n$  (36), as in FIG. 64, and the server  $PS$  (18) organizes the addressable query information  
20 groups  $GI_{n1} \dots GI_{nz}$  (63) therein to the corresponding service and/or information response  $IR_n$  (34), as in FIG. 60.

Now again, for the client  $C_n$  (16), information from the current request group  $QA_{nc}$  (50) having the corresponding queries  $QQ_{n1}...QQ_{nm}$  (53) and the corresponding server addresses  $AQ_{n1}...AQ_{nm}$  (54) is formulated into the corresponding request pointer/address group  $QY_n$  (68) having the pointers/addresses  $PF_{n11}...PF_{nmr}$  (69) associated therewith, as shown in FIG. 64.

Now again, for the client  $C_n$  (16), each of the pointers/addresses  $PF_{n11}...PF_{nmr}$  (69) are directed to point/address the corresponding addressable response information groups  $RG_{n1}...RG_{nm}$  (57), and aid in obtaining information and/or services therefrom the corresponding addressable response information groups  $RG_{n1}...RG_{nm}$  (57) to be incorporated therein to the addressable query information groups  $GI_{n1}...GI_{nz}$  (63), as shown in FIG. 64.

Again, the grouping and/or sorting criteria allow the user  $U_n$  (12) to direct the server  $PS$  (18) and/or the client  $C_n$  (16) to sort information and/or services therefrom the responses the responses  $R_{n1}...R_{nm}$  (32) and/or the additional optional responses  $RA_{n1}...RA_{nm}$  (40) therefrom the optional database 41, such as, for example, by category, query, group, page, order of importance, ascending and/or descending order, alphabetically and/or numerically, value, price, and/or other characteristics, and/or to combine and/or interleave the information and/or services therefrom the responses the responses  $R_{n1}...R_{nm}$  (32) and/or the additional optional responses  $RA_{n1}...RA_{nm}$  (40) one with the other, such as, for example, by order of relevance and/or other parameters.

FIG. 65 shows the particular user service and/or information response  $ir_n$  (36) having the service and/or information group  $G_n$  (35), the additional request links  $SL_{n1}...SL_{nw}$  (71), the optional order form 72, the optional additional advertisements and/or links 73, the optional hidden information 74, and the optional service and/or information entry request form  $IE_n$  (38).

Now again, the service and/or information group  $G_n$  (35) has the query information groups  $GI_{n1}...GI_{nz}$  (63), the optional database response groups 75, and the optional additional advertisements and/or links 76.

Yet again, the additional request links  $SL_{n1}...SL_{nw}$  (71) allow the user  $U_n$  (12) to make additional optional selections, based upon information and/or services previously requested by the user  $U_n$  (12). The additional request links  $SL_{n1}...SL_{nw}$  (71), which are optional, may typically have Current Group/Next Group/Previous Group/Group Number Links, Server Names in Each Group, Queries in Each Group, Current Page/Next Page/Previous Page/Page Number Links, Search Display/Link and/or Description Placement/Interleave/Separate, and Link Description Options/Summary/Minimize. Other additional ones of the additional request links  $SL_{n1}...SL_{nw}$  (71) and/or combinations thereof may also be incorporated thereto the user service and/or information response  $ir_n$  (36).

Now again, for the client  $C_n$  (16), the optional order form 72 allows direct placement and/or confirmation of orders and/or purchases therewith the servers  $S_1...S_z$  (20)

FIG. 59  
FIG. 60  
FIG. 61  
FIG. 62  
FIG. 63  
FIG. 64  
FIG. 65  
FIG. 66A  
FIG. 66B  
FIG. 66C  
FIG. 67  
FIG. 68  
FIG. 69  
FIG. 70  
FIG. 71  
FIG. 72  
FIG. 73  
FIG. 74  
FIG. 75  
FIG. 76  
FIG. 77  
FIG. 78  
FIG. 79  
FIG. 80  
FIG. 81  
FIG. 82  
FIG. 83  
FIG. 84  
FIG. 85  
FIG. 86  
FIG. 87  
FIG. 88  
FIG. 89  
FIG. 90  
FIG. 91  
FIG. 92  
FIG. 93  
FIG. 94  
FIG. 95  
FIG. 96  
FIG. 97  
FIG. 98  
FIG. 99  
FIG. 100

and/or the optional servers **SO<sub>1</sub>...SO<sub>p</sub> (22)**, which reside on the network **24**. The user **U<sub>n</sub> (12)** may enter the order placement thereinto the user interface **I<sub>n</sub> (14)** therethrough the user input **UI<sub>n</sub> (25)**, and receive order confirmation therethrough the user interface **I<sub>n</sub> (14)**. The client **C<sub>n</sub> (16)** may communicate the order placement therefrom the user interface **I<sub>n</sub> (14)** thereto the servers **S<sub>1</sub>...S<sub>z</sub> (20)** and/or the optional servers **SO<sub>1</sub>...SO<sub>p</sub> (22)**, and/or receive the order confirmation therefrom, and communicate the order confirmation therefrom the servers **S<sub>1</sub>...S<sub>z</sub> (20)** and/or the optional servers **SO<sub>1</sub>...SO<sub>p</sub> (22)** thereto the user interface **I<sub>n</sub> (14)** for presentation to the user **U<sub>n</sub> (12)**. The order placement and/or the order confirmation may be stored within the server **PS (18)** and/or the client **C<sub>n</sub> (16)**. The order placement and/or the order confirmation is typically secure, and may be encrypted, and is typically communicated using secure communications means.

**D. FORMULATING QUERY INFORMATION GROUPS**

Each of the particular addressable response information groups **RG<sub>n1</sub>...RG<sub>nm</sub> (57)**, designated as the addressable response information group **RG<sub>nm</sub> (57)**, has optional addressable individual information groups **LG<sub>nm1</sub>...LG<sub>nmr</sub> (80)**, which may be addressed therewith the pointers/addresses **PP<sub>nm1</sub>...PP<sub>nmr</sub> (64)**, as shown in FIGS. 59, 63, 66A, 66B, and 66C.

Each of the addressable response information groups **RG<sub>n1</sub>...RG<sub>nm</sub> (57)** and each of the optional addressable individual information groups **LG<sub>n11</sub>...LG<sub>nmr</sub> (80)** therein

each of the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) may be addressed therewith the pointers/addresses  $PP_{n11} \dots PP_{nmr}$  (64).

Now again, the addressable response information group  $RG_{nm}$  (57) has the optional  
5 addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  (80), which may be addressed therewith the pointers/addresses  $PP_{nm1} \dots PP_{nmr}$  (64). Each of the addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  (80) therein the addressable response information group  $RG_{nm}$  (57) may be pointed/addressed by the server  $PS$  (18) and/or the client  $C_n$  (16) to retrieve all and/or a portion and/or combinations  
10 thereof of specific ones of the addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  (80), therefrom the addressable response information group  $RG_{nm}$  (57), and incorporate information and/or services therefrom the addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  (80) thereinto certain ones of the addressable query information groups  $GI_{n1} \dots GI_{nz}$  (63), in accordance with the grouping and/or sorting  
15 criteria addressing scheme.

The addressable response information group  $RG_{nm}$  (57) having the optional addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  (80) may have optional addressable pointer/address indices  $IN_{nm1} \dots IN_{nmr}$  (81) correspondingly associated  
20 therewith the optional addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  (80), which may be addressed/pointed therewith the pointers/addresses  $PP_{nm1} \dots PP_{nmr}$  (64), and which may be pointed/addressed by the server  $PS$  (18) and/or the client  $C_n$  (16) to retrieve all and/or a portion and/or combinations thereof of specific ones of the

addressable individual information groups **LG<sub>nm1</sub>...LG<sub>nmr</sub> (80)**, and incorporate information and/or services therefrom the addressable individual information groups **LG<sub>nm1</sub>...LG<sub>nmr</sub> (80)** thereinto the certain ones of the addressable query information groups **GI<sub>n1</sub>...GI<sub>nz</sub> (63)**, in accordance with the grouping and/or sorting criteria  
5 addressing scheme.

FIGS. 66A, 66B, and 66C show the addressable response information group **RG<sub>nm</sub> (57)** having the addressable individual information groups **LG<sub>nm1</sub>...LG<sub>nmr</sub> (80)** showing the optional addressable pointer/address indices **IN<sub>nm1</sub>...IN<sub>nmr</sub> (81)** correspondingly  
10 associated therewith the optional addressable individual information groups **LG<sub>nm1</sub>...LG<sub>nmr</sub> (80)**, which may be addressed/pointed therewith the pointer/addresses **PP<sub>nm1</sub> (64)**, **PP<sub>nm2</sub> (64)**, and **PP<sub>nmr</sub> (64)**, respectively.

The optional addressable pointer/address index **IN<sub>nm1</sub> (81)** is correspondingly  
15 associated therewith the optional addressable individual information group **LG<sub>nm1</sub> (80)**.  
The optional addressable pointer/address index **IN<sub>nm2</sub> (81)** is correspondingly associated therewith the optional addressable individual information group **LG<sub>nm2</sub> (80)**, and so on. The optional addressable pointer/address index **IN<sub>nmr</sub> (81)** is, thus, correspondingly associated therewith the optional addressable individual information  
20 group **LG<sub>nm1</sub> (80)**.

The pointers/addresses **PG<sub>n1</sub>...PG<sub>nz</sub> (61)** may be formulated as arrays and/or lists.

The pointers/addresses **PP<sub>nm1</sub>...PP<sub>nmr</sub> (64)** and/or the pointers/addresses

$PF_{nm1} \dots PF_{nmr}$  (69) may be formulated as arrays and/or lists. The arrays may be multidimensional arrays, and the lists may be lists within lists.

The optional addressable individual information group  $LG_{nmr}$  (80) is associated therewith and corresponds to a particular one of the addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  (80) therein a particular one of the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57), designated as the addressable response information group  $RG_{nm}$  (57). The first subscript of the optional addressable individual information groups  $LG_{nmr}$  (80) is associated therewith and corresponds to the particular service and/or information request  $IQ_n$  (28) and/or the user service and/or information request  $iq_n$  (27). The second subscript of the optional addressable individual information groups  $LG_{nmr}$  (80) is associated therewith and corresponds to a particular one of "1" through "m" i.e., 1.....m, of the addressable response information group  $RG_{n1} \dots RG_{nm}$  (57). The third subscript of the optional addressable individual information groups  $LG_{nmr}$  (80) is associated therewith and corresponds to a particular one of "1" through "r" i.e., 1.....r, of the optional addressable individual information group  $LG_{nm1} \dots LG_{nmr}$  (80) within the addressable response information group  $RG_{nm}$  (57).

The subscripts of the optional addressable pointer/address indices  $IN_{nm1} \dots IN_{nmr}$  (81) are correspondingly associated therewith the subscripts of the corresponding addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  (80).



A number and variety of pointing/addressing schemes are possible, which may be used for a variety of grouping and sorting criteria schemes and addressing/pointing schemes.

For example, the pointers/addresses  $PG_{n1} \dots PG_{nz}$  (61) of the request pointer/address group  $QZ_n$  (60) may be pointed/addressed thereto certain ones of the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62), in accordance with certain grouping and/or sorting criteria schemes and/or pointing/addressing schemes. The pointers/addresses  $PP_{n11} \dots PP_{nmr}$  (64) of each of the pointed/addressed addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62) may be pointed thereto the pointer/address indices  $IN_{n11} \dots IN_{nmr}$  (81) of the optional addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$ , i.e.,  $1, \dots, r$ , and the pointers/addresses  $PP_{n11} \dots PP_{nmr}$  (64), i.e.,  $1, \dots, m$ , corresponding to the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) formulated by the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62) may be pointed thereto certain ones of the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57), in accordance with certain grouping and/or sorting criteria schemes and/or addressing schemes. This subprocess may be repeated until the information and/or services from the optional addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  from the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) is incorporated thereto certain ones of the addressable query information groups  $GI_{n1} \dots GI_{nz}$  (63), in accordance with the grouping and/or sorting criteria addressing scheme, as formulated by the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62) and the request pointer/address group  $QZ_n$  (60).

Alternatively and/or additionally, the pointers/addresses  $PG_{n1} \dots PG_{nz}$  (61) of the request pointer/address group  $QZ_n$  (60) may be incremented therethrough each of the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62). The pointers/addresses  $PP_{n11} \dots PP_{nmr}$  (64) of each of the pointed/addressed addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62) may be pointed to the pointer/address indices  $IN_{n11} \dots IN_{nmr}$  (81) of the optional addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$ , i.e.,  $1, \dots, r$ , and incremented once, and then the pointers/addresses  $PP_{n11} \dots PP_{nmr}$  (64), i.e.,  $1, \dots, m$ , corresponding to the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) formulated by the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62) may be incremented therethrough each of the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57). This subprocess may be repeated until the information and/or services from the optional addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  from the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) is incorporated therinto the certain ones of the addressable query information groups  $GI_{n1} \dots GI_{nz}$  (63), in accordance with the grouping and/or sorting criteria addressing scheme, and as formulated by the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62).

Alternatively and/or additionally, the pointers/addresses  $PP_{n11} \dots PP_{nmr}$  (64), i.e.,  $1, \dots, m$ , may be incremented, corresponding to the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) formulated by the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62), and then the pointers/addresses  $PP_{n11} \dots PP_{nmr}$  (64), i.e.,  $1, \dots, r$ , pointing to the pointer/address indices  $IN_{n11} \dots IN_{nmr}$  (81) of the optional addressable

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individual information groups  $LG_{nm1} \dots LG_{nmr}$  may then be incremented. This subprocess may be repeated until the information and/or services from the optional addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  from the addressable response information group s  $RG_{n1} \dots RG_{nm}$  (57) is incorporated thereinto the certain ones of the addressable query information groups  $GI_{n1} \dots GI_{nz}$  (63), in accordance with the grouping and/or sorting criteria addressing scheme, and as formulated by the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62).

Alternatively and/or additionally, the pointers/addresses  $PF_{nm1} \dots PF_{nmr}$  (69), i.e., 1, . . . . . m, may be incremented, corresponding to the addressable response information group s  $RG_{n1} \dots RG_{nm}$  (57) formulated by the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62), and then the pointers/addresses  $PF_{nm1} \dots PF_{nmr}$  (69), i.e., 1, . . . . . r, pointing to the pointer/address indices  $IN_{n11} \dots IN_{nmr}$  (81) of the optional addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  may then be incremented. This subprocess may be repeated until the information and/or services from the optional addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  from the addressable response information group s  $RG_{n1} \dots RG_{nm}$  (57) is incorporated thereinto the certain ones of the addressable query information groups  $GI_{n1} \dots GI_{nz}$  (63), in accordance with the grouping and/or sorting criteria addressing scheme, and as formulated by the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62).

The typical sorting and/or grouping criteria and the addressing/pointing schemes mentioned immediately above, for example, may group certain ones of the queries

$QQ_{n1} \dots QQ_{nm}$  (53) having the same and/or substantially the same values grouped therein a particular one of the query information groups  $GI_{nz} \dots GI_{nz}$  (63), designated as the query information group  $GI_{nz}$  (63), as shown in certain ones of FIGS. 27-52.

- 5 The grouping and/or sorting criteria and schemes and the addressing/pointing schemes mentioned herein are but only a small portion of a much larger variety of grouping and/or sorting criteria and schemes and addressing/pointing schemes and/or combinations thereof that the client-server multitasking system 10 of the present invention may use and is capable of. The above mentioned examples are included
- 10 herein to illustrate but a few examples of the capabilities of the client-server multitasking system 10 of the present invention.

The addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  (80) are typically parsed, and/or processed, and/or formatted for consistency of presentation and/or appearance one with the other, as the addressable individual information groups

15  $LG_{nm1} \dots LG_{nmr}$  (80) are incorporated therein to the addressable response information group s  $RG_{n1} \dots RG_{nm}$  (57) therefrom the responses  $R_{n1} \dots R_{nm}$  (32).

Alternatively and/or additionally the addressable individual information groups

20  $LG_{nm1} \dots LG_{nmr}$  (80) may be incorporated therein to the addressable response information group s  $RG_{n1} \dots RG_{nm}$  (57) therefrom the responses  $R_{n1} \dots R_{nm}$  (32) in an as-is condition and/or in raw form.

The optional addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  (80) therein the addressable response information group  $RG_{nm}$  (57), having information and/or services parsed and/or processed, and/or formatted, and/or grouped therefrom the response  $R_{nm}$  (32), may be correspondingly associated therewith the locations of the  
5 information and/or services therein the response  $R_{nm}$  (32).

Each of the addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  (80) may have and/or be parsed, and/or processed, and/or formatted, and/or organized, and/or grouped into corresponding optional links  $LD_{nm1} \dots LD_{nmr}$  (82), and/or corresponding optional  
10 descriptions  $DD_{nm1} \dots DD_{nmr}$  (83), and/or corresponding optional prices/values  $PD_{nm1} \dots PD_{nmr}$  (84), and/or corresponding optional images  $ID_{nm1} \dots ID_{nmr}$  (85), as shown in FIG. 67.

The optional links  $LD_{nm1} \dots LD_{nmr}$  (82), the corresponding optional descriptions  
15  $DD_{nm1} \dots DD_{nmr}$  (83), the corresponding optional prices/values  $PD_{nm1} \dots PD_{nmr}$  (84), and the corresponding optional images  $ID_{nm1} \dots ID_{nmr}$  (85), corresponding to the addressable individual information groups  $LG_{nm1} \dots LG_{nmr}$  (80) are typically associated correspondingly one with the other.

20 The optional link  $LD_{nm1}$  (82), the corresponding optional description  $DD_{nm1}$  (83), the corresponding optional price/value  $PD_{nm1}$  (84), and the corresponding optional image  $ID_{nm1}$  (85), corresponding to the optional individual information group  $LG_{nm1}$  (80) are typically associated correspondingly one with the other. The optional link  $LD_{nm2}$  (82),

the corresponding optional description **DD<sub>nm2</sub> (83)**, the corresponding optional price/value **PD<sub>nm2</sub> (84)**, and the corresponding optional image **ID<sub>nm2</sub> (85)**, corresponding to the addressable individual information group **LG<sub>nm2</sub> (80)** are typically associated correspondingly one with the other, and so on. The optional link **LD<sub>nmr</sub> (82)**, the corresponding optional description **DD<sub>nmr</sub> (83)**, the corresponding optional price/value **PD<sub>nmr</sub> (84)**, and the corresponding optional image **ID<sub>nmr</sub> (85)**, corresponding to the addressable individual information group **LG<sub>nmr</sub> (80)** are, thus, typically associated correspondingly one with the other.

10 The addressable individual information groups **LG<sub>nm1...LG<sub>nmr</sub> (80)</sub>**, which may have the corresponding optional links **LD<sub>nm1...LD<sub>nmr</sub> (82)</sub>**, and/or the corresponding optional descriptions **DD<sub>nm1...DD<sub>nmr</sub> (83)</sub>**, and/or the corresponding optional prices/values **PD<sub>nm1...PD<sub>nmr</sub> (84)</sub>**, and/or the corresponding optional images **ID<sub>nm1...ID<sub>nmr</sub> (85)</sub>** are appended therewith labels/identifiers, as shown in FIG. 68, and  
15 incorporated therein certain ones of the addressable query information groups **GI<sub>n1...GI<sub>nz</sub> (63)</sub>**, depending upon the grouping and/or sorting criteria. FIG. 69 shows a particular one of the addressable query information groups **GI<sub>n1...GI<sub>nz</sub> (63)</sub>**, designated as the query information group **GI<sub>nz</sub> (63)**.

20 Now again, the optional addressable individual information group **LG<sub>nmr</sub> (80)** is associated therewith and corresponds to a particular one of the addressable individual information groups **LG<sub>nm1...LG<sub>nmr</sub> (80)</sub>** therein a particular one of the addressable response information groups **RG<sub>n1...RG<sub>nm</sub> (57)</sub>**, designated as the addressable

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response information group  $RG_{nm}$  (57). The first subscript of the optional addressable individual information groups  $LG_{nmr}$  (80) is associated therewith and corresponds to the particular service and/or information request  $IQ_n$  (28) and/or the user service and/or information request  $iq_n$  (27). The second subscript of the optional addressable individual information groups  $LG_{nmr}$  (80) is associated therewith and corresponds to a particular one of "1" through "m" i.e., 1.....m, of the addressable response information group  $RG_{n1}...RG_{nm}$  (57). The third subscript of the optional addressable individual information groups  $LG_{nmr}$  (80) is associated therewith and corresponds to a particular one of "1" through "r", i.e., 1.....r, of the optional addressable individual information group  $LG_{nm1}...LG_{nmr}$  (80) within the addressable response information group  $RG_{nm}$  (57).

FIG. 68 shows a labelled individual information group  $LL_{nzu}$  (86) associated therewith a particular one of the addressable query information groups  $GI_{n1}...GI_{nz}$  (63),

designated as the addressable query information group  $GI_{nz}$  (63), having optional group identifier  $GL_{nc}$  (87), optional query link identifier  $LN_{ncu}$  (88), optional resource location identifier  $SU_{nw}$  (89), optional server and/or query identifier  $SI_{nm}$  (90), and/or optional server link identifier  $LX_{nmr}$  (91) appended thereto the addressable individual information group  $LG_{nmr}$  (80).

The first alphanumeric subscript of the labelled individual information group  $LL_{nzu}$  (86) is associated therewith and corresponds to the service and/or information response  $IR_n$  (34) and/or the user service and/or information response  $ir_n$  (36). The second

alphanumeric subscript of the labelled individual information group **LL<sub>nzu</sub> (86)** is associated therewith and corresponds to a particular one of “1” through “z”, i.e., 1.....z, of the addressable query information groups **GI<sub>n1</sub>...GI<sub>nz</sub> (63)**, designated as the addressable query information group **GI<sub>nz</sub> (63)**, which the labelled individual information group **LL<sub>nzu</sub> (86)** is incorporated therein. The third alphanumeric subscript of the labelled individual information group **LL<sub>nzu</sub> (86)** is associated therewith and corresponds to a particular one of “1” through “u”, i.e., 1.....u, of labelled individual information groups **LL<sub>nz1</sub>...LL<sub>nzu</sub> (86)** within the addressable query information group **GI<sub>nz</sub> (63)**.

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The optional group identifier **GL<sub>nc</sub> (87)** labels and/or identifies the current request group **QA<sub>nc</sub> (50)**. The optional group identifier **GL<sub>nc</sub> (87)** is associated therewith and corresponds to the current request group **QA<sub>nc</sub> (50)**, which may be any particular one of the request groups **QA<sub>n1</sub>...QA<sub>nz</sub> (51)** selected by the user **U<sub>n</sub> (12)**. The first alphanumeric subscript of the optional group identifier **GL<sub>nc</sub> (87)** is associated therewith and corresponds to the service and/or information response **IR<sub>n</sub> (34)** and/or the user service and/or information response **ir<sub>n</sub> (36)**. The second subscript of the optional group identifier **GL<sub>nc</sub> (87)** is associated therewith and corresponds to the particular one of the request groups **QA<sub>n1</sub>...QA<sub>nz</sub> (51)** selected by the user **U<sub>n</sub> (12)** as the current request group **QA<sub>nc</sub> (50)**.

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The optional query link identifier **LN<sub>ncu</sub> (88)** is also associated therewith and corresponds to the current request group **QA<sub>nc</sub> (50)**. The optional query link identifier



**LN<sub>ncu</sub> (88)** labels and/or identifies the labelled individual information group **LL<sub>nzu</sub> (86)**. The first alphanumeric subscript of the optional query link identifier **LN<sub>ncu</sub> (88)** is associated therewith and corresponds to the service and/or information response **IR<sub>n</sub> (34)** and/or the user service and/or information response **ir<sub>n</sub> (36)**. The second subscript of the optional query link identifier **LN<sub>ncu</sub> (88)** is also associated therewith and corresponds to the particular one of the request groups **QA<sub>n1</sub>...QA<sub>nz</sub> (51)** selected by the user **U<sub>n</sub> (12)** as the current request group **QA<sub>nc</sub> (50)**. The third alphanumeric subscript of the optional query link identifier **LN<sub>ncu</sub> (88)** is associated therewith and corresponds to a particular one of "l" through "u", i.e., 1.....u, of the labelled individual information groups **LL<sub>nz1</sub>...LL<sub>nzu</sub> (86)** therein the addressable query information group **GI<sub>nz</sub> (63)**.

The optional resource location identifier **SU<sub>nw</sub> (89)** labels and/or identifies resource locations of information and/or services associated therewith and corresponding to the optional addressable individual information group **LG<sub>nmr</sub> (80)** therein the labelled individual information group **LL<sub>nzu</sub> (86)**. The optional resource location identifier **SU<sub>nw</sub> (89)** indicates and is associated therewith and corresponds to resource locations of information and/or services associated therewith certain ones of the optional servers **SO<sub>1</sub>...SO<sub>p</sub> (22)** and/or certain ones of the servers **S<sub>1</sub>...S<sub>z</sub> (20)**. The optional resource location identifier **SU<sub>nw</sub> (89)** may be obtained from certain information therein the optional addressable individual information group **LG<sub>nmr</sub> (80)**. The first alphanumeric subscript of the optional resource location identifier **SU<sub>nw</sub> (89)** is associated therewith and corresponds to the service and/or information response **IR<sub>n</sub> (34)** and/or the user

service and/or information response  $ir_n$  (36). The second alphanumeric subscript of the optional resource location identifier  $SU_{nw}$  (89) is associated therewith and corresponds to a particular one of "1" through "w", i.e., 1.....w, of the optional resource location identifiers  $SU_{n1}...SU_{nw}$  (89) therein the labelled individual information group  $LL_{nzu}$  (86).

The optional server and/or query identifier  $SI_{nm}$  (90) labels and/or identifies the query  $QQ_{nm}$  (53) and/or the corresponding server address  $AQ_{nm}$  (54) associated therewith and corresponding to the optional addressable individual information group  $LG_{nmr}$  (80) therein the corresponding labelled individual information group  $LL_{nzu}$  (86) of the current request group  $QA_{nc}$  (50). The first alphanumeric subscript of the optional server and/or query identifier  $SI_{nm}$  (90) is associated therewith and corresponds to the service and/or information response  $IR_n$  (34) and/or the user service and/or information response  $ir_n$  (36). The second alphanumeric subscript of the optional server and/or query identifier  $SI_{nm}$  (90) is associated therewith and corresponds to a particular one of "1" through "m", i.e., 1.....m, of the optional server and/or query identifiers  $SI_{n1}...SI_{nm}$  (90), which may be correspondingly associated therewith the corresponding ones of the queries  $QQ_{n1}...QQ_{nm}$  (53) and/or the corresponding ones of the server addresses  $AQ_{n1}...AQ_{nm}$  (54).

The optional server link identifier  $LX_{nmr}$  (91) labels and/or identifies the location of the optional addressable individual information group  $LG_{nmr}$  (80) therein the corresponding addressable response information groups  $RG_{nm}$  (57). The first

alphanumeric subscript of the optional server link identifier  $LX_{nmr}$  (91) is associated therewith and corresponds to the service and/or information response  $IR_n$  (34) and/or the user service and/or information response  $ir_n$  (36). The second alphanumeric subscript of the optional server link identifier  $LX_{nmr}$  (91) is associated therewith and corresponds to the addressable response information group  $RG_{nm}$  (57). The third alphanumeric subscript of the optional server link identifier  $LX_{nmr}$  (91) is associated therewith and corresponds to a particular one of "1" through "r", i.e., 1.....r, of the optional server link identifiers  $LX_{nm1}...LX_{nmr}$  (91), which may be correspondingly associated therewith the locations of certain ones of the optional addressable individual information group  $LG_{nm1}...LG_{nmr}$  (80) therein the addressable response information groups  $RG_{nm}$  (57). The certain ones of the optional addressable individual information groups  $LG_{nm1}...LG_{nmr}$  (80) therein the addressable response information group  $RG_{nm}$  (57), having information and/or services parsed and/or processed, and/or formatted, and/or grouped therefrom the response  $R_{nm}$  (32), which are labelled and/or identified therewith the optional server link identifiers  $LX_{nm1}...LX_{nmr}$  (91), are correspondingly associated therewith the locations of the information and/or services therein the response  $R_{nm}$  (32). The optional server link identifiers  $LX_{nm1}...LX_{nmr}$  (91), thus, identify and/or label the location of services and/or information therein the response  $R_{nm}$  (32).

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FIG. 69 shows the addressable query information group  $GI_{nz}$  (63) having the labelled individual information groups  $LL_{nz1}...LL_{nzu}$  (86), optional database labelled individual information groups  $RL_{nz1}...RL_{nzx}$  (92), optional query description  $QT_{nz}$  (93), optional

server descriptions and/or links  $ST_{nz1} \dots ST_{nzf}$  (94), and optional advertisements and/or links  $LT_{nz1} \dots LT_{nzt}$  (95). The first and second subscripts of the optional database labelled individual information groups  $RL_{nz1} \dots RL_{nzx}$  (92), the optional query description  $QT_{nz}$  (93), the optional server descriptions and/or links  $ST_{nz1} \dots ST_{nzf}$  (94), and the optional advertisements and/or links  $LT_{nz1} \dots LT_{nzt}$  (95) are associated therewith and correspond to the addressable query information group  $GI_{nz}$  (63). The third subscripts of the optional database labelled individual information groups  $RL_{nz1} \dots RL_{nzx}$  (92), the optional server descriptions and/or links  $ST_{nz1} \dots ST_{nzf}$  (94), and the optional advertisements and/or links  $LT_{nz1} \dots LT_{nzt}$  (95) are associated therewith and correspond to ones of the optional database labelled individual information groups  $RL_{nz1} \dots RL_{nzx}$  (92), the optional server descriptions and/or links  $ST_{nz1} \dots ST_{nzf}$  (94), and the optional advertisements and/or links  $LT_{nz1} \dots LT_{nzt}$  (95), respectively.

#### 15 IV PROCESS

FIG. 70 shows steps of a client-server multitasking process 99 of the present invention. The client-server multitasking process 99 is shown for the client-server multitasking system 10 for a particular one of the users  $U \dots U_n$  (12), designated as the user  $U_n$  (12), the corresponding particular one of the user interfaces  $I \dots I_n$  (14), designated as the user interface  $I_n$  (14), the corresponding particular one of the clients  $C \dots C_n$  (16), designated as the client  $C_n$  (16), the server PS (18), the servers  $S_1 \dots S_z$  (20), and the optional servers  $SO_1 \dots SO_p$  (22), which reside on the network 24.

The client-server multitasking process **99** starts at step **101**. The user **U<sub>n</sub> (12)** enters the user input **UI<sub>n</sub> (25)** thereinto the user interface **I<sub>n</sub> (14)** (step **102**). The user input **UI<sub>n</sub> (25)** is formulated thereinto the user service and/or information request **iq<sub>n</sub> (27)** at the user interface **I<sub>n</sub> (14)** and communicated thereto the client **C<sub>n</sub> (16)** (step **103**). The  
5 user service and/or information request **iq<sub>n</sub> (27)** may be formulated thereinto the service and/or information request **IQ<sub>n</sub> (28)** at the client **C<sub>n</sub> (16)** and communicated thereto the server **PS (18)** (also step **103**).

The service and/or information response **IR<sub>n</sub> (34)** and/or the user service and/or  
10 information response **ir<sub>n</sub> (36)** are derived at the server **PS (18)** and/or the client **C<sub>n</sub> (16)**, respectively, at step **104**, which in itself is a process, and may hereinafter be referred to as the multitasking process **104**. The multitasking process **104** will be discussed in more detail later with reference to FIGS. 70-1A and 70-1B.

15 Now, continuing with FIG. 70, the user service and/or information response **ir<sub>n</sub> (36)** may be derived at the client **C<sub>n</sub> (16)** (step **104**) therefrom the service and/or information response **IR<sub>n</sub> (34)**, which may be communicated thereto the client **C<sub>n</sub> (16)** therefrom the server **PS (18)** (also step **104**), and/or alternatively and/or additionally therefrom the responses **R<sub>n1</sub>...R<sub>nm</sub> (32)**, which may be communicated thereto the client  
20 **C<sub>n</sub> (16)** (step **104**).

Now, the client **C<sub>n</sub> (16)** may communicate the service and/or information request **IQ<sub>n</sub> (28)** thereto the server **PS (18)** (step **103**). The service and/or information response

$IR_n$  (34) is then derived at the server **PS (18)** (step 104) and communicated thereto the client  $C_n$  (16) (also step 104). The user service and/or information response  $ir_n$  (36) may be derived therefrom the service and/or information response  $IR_n$  (34) (also step 104).

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Now, in more detail, if the service and/or information request  $IQ_n$  (28) is communicated thereto the server **PS (18)** (step 103), then the server **PS (18)** makes the requests  $Q_{n1}...Q_{nm}$  (29) and/or certain ones of the requests  $Q_{n1}...Q_{nm}$  (29) thereof the servers  $S_1...S_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $S_1...S_z$  (20) to be communicated with corresponding to the requests  $Q_{n1}...Q_{nm}$  (29) as the corresponding server designations  $S_{n1}...S_{nm}$  (30), utilizing information therefrom the service and/or information request  $IQ_n$  (28). The service and/or information response  $IR_n$  (34) is then derived at the server **PS (18)** (step 104) therefrom the responses  $R_{n1}...R_{nm}$  (32) received from the servers  $S_1...S_z$  (20) corresponding to the server designations  $S_{n1}...S_{nm}$  (30), and communicated thereto the client  $C_n$  (16). Now, again, the user service and/or information response  $ir_n$  (36) may be derived therefrom the service and/or information response  $IR_n$  (34) (also step 104).

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Now, also in more detail, alternatively and/or additionally, the client  $C_n$  (16) may make the requests  $Q_{n1}...Q_{nm}$  (29) and/or certain other ones of the requests  $Q_{n1}...Q_{nm}$  (29) thereof the servers  $S_1...S_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $S_1...S_z$  (20) to be communicated with corresponding to the requests  $Q_{n1}...Q_{nm}$  (29) as the corresponding server designations

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FIG. 70-2

$S_{n1} \dots S_{nm}$  (30), utilizing information therefrom the user service and/or information request  $iq_n$  (27). Now, again, the user service and/or information response  $ir_n$  (36) may also be derived at the client  $C_n$  (16) (step 104) therefrom the responses  $R_{n1} \dots R_{nm}$  (32) communicated thereto the client  $C_n$  (16) (step 104) and/or alternatively and/or  
5 additionally therefrom the service and/or information response  $IR_n$  (34) communicated thereto the client  $C_n$  (16) therefrom the server  $PS$  (18) (also step 104).

The user service and/or information response  $ir_n$  (36), thus, may be derived therefrom the service and/or information response  $IR_n$  (34) communicated therefrom the server  
10  $PS$  (18) thereto the client  $C_n$  (16) and/or alternatively and/or additionally therefrom the responses  $R_{n1} \dots R_{nm}$  (32) communicated thereto the client  $C_n$  (16) (step 104).

The user service and/or information response  $ir_n$  (36) is communicated thereto the user interface  $I_n$  (14) (step 105) and incorporated therein into the user response  $UR_n$  (37).  
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The user  $U_n$  (12) reviews the user response  $UR_n$  (37) and/or selects additional services and/or information (step 106). Step 106 will be discussed in more detail later with reference to FIG. 70-2. The process 99 ends at step 107. The process 99 will be described in more detail with reference to FIGS. 1-141 of the drawings.

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The service and/or information response  $IR_n$  (34) and/or the user service and/or information response  $ir_n$  (36) are derived at the server  $PS$  (18) and/or the client  $C_n$

(16), respectively, at step 104 in FIG. 70, and shown in more detail in FIGS. 70-1A and 70-1B.

FIG. 70-1A shows the multitasking process 104 of deriving the service and/or  
5 information response  $IR_n$  (34) and/or the user service and/or information response  $ir_n$   
(36), with reference to FIGS. 59 and 63. FIG. 70-1B shows the multitasking process  
104 of deriving the service and/or information response  $IR_n$  (34) and/or the user  
service and/or information response  $ir_n$  (36) having other grouping/sorting that may be  
used additionally and/or alternatively to that of FIGS. 59 and 63, as shown with  
10 reference to FIGS. 60 and 64. The multitasking process 104 will also be described in  
more detail with reference to FIGS. 1-141 of the drawings.

The server  $PS$  (18) and/or the client  $C_n$  (16) parse, process, and/or format the service  
and/or information request  $IQ_n$  (28) and/or the user service and/or information request  
15  $iq_n$  (27) into the current request group  $QA_{nc}$  (50), the request groups  $QA_{n1} \dots QA_{nz}$   
(51), and the optional instructions  $VJ_{n1} \dots VJ_{nk}$  (52) (step 104-1), as shown in FIGS.  
70-1A and 70-1B.

Information therefrom the current request group  $QA_{nc}$  (50) and the optional  
20 instructions  $VJ_{n1} \dots VJ_{nk}$  (52) may be used to make the requests  $Q_{n1} \dots Q_{nm}$  (29),  
obtain the responses  $R_{n1} \dots R_{nm}$  (32), and incorporate information therefrom into the  
service and/or information response  $IR_n$  (34) and/or the user service and/or information  
response  $ir_n$  (36), as shown in FIGS. 70-1A and 70-1B with reference to FIGS. 59, 60,



63, and 64. The current request group  $QA_{nc}$  (50) may be any particular one the request groups  $QA_{n1}...QA_{nz}$  (51), which may be selected by the user  $U_n$  (12).

The current request group  $QA_{nc}$  (50) has the corresponding queries  $QQ_{n1}...QQ_{nm}$  (53) and the corresponding server addresses  $AQ_{n1}...AQ_{nm}$  (54) to open connections with  
5 and make the requests  $Q_{n1}...Q_{nm}$  (29) thereof of the servers  $S_1...S_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $S_1...S_z$  (20) to be communicated with corresponding to the requests  $Q_{n1}...Q_{nm}$  (29) as the corresponding server designations  $S_{n1}...S_{nm}$  (30), shown for the particular service  
10 and/or information request  $IQ_n$  (28) and/or the particular user service and/or information request  $iq_n$  (27).

The server  $PS$  (18) and/or the client  $C_n$  (16) open connections with and make the requests  $Q_{n1}...Q_{nm}$  (29) having the corresponding queries  $QQ_{n1}...QQ_{nm}$  (53) and the  
15 corresponding server addresses  $AQ_{n1}...AQ_{nm}$  (54) therein the current request group  $QA_{nc}$  (50) thereof of the servers  $S_1...S_z$  (20) (step 104-2) as shown in FIGS. 70-1A and 70-1B, in accordance with the designation scheme which designates the certain ones of the servers  $S_1...S_z$  (20) to be communicated with corresponding to the requests  $Q_{n1}...Q_{nm}$  (29) as the corresponding server designations  $S_{n1}...S_{nm}$  (30).

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The servers  $S_1...S_z$  (20) corresponding to the server designations  $S_{n1}...S_{nm}$  (30), designated in accordance with the designation scheme which designates the certain ones of the servers  $S_1...S_z$  (20) to be communicated with corresponding to the requests

$Q_{n1}...Q_{nm}$  (29) as the corresponding server designations  $S_{11}...S_{nm}$  (30), respond to the requests  $Q_{n1}...Q_{nm}$  (29) with the corresponding responses  $R_{n1}...R_{nm}$  (32).

The server **PS** (18) and/or the client  $C_n$  (16) parse, and/or process, and/or format,  
5 and/or group, and/or organize each of the responses  $R_{n1}...R_{nm}$  (32) received from the servers  $S_1...S_z$  (20) (step 104-3), as shown in FIGS. 70-1A and 70-1B with reference to FIGS. 99-101, corresponding to the server designations  $S_{n1}...S_{nm}$  (30) thereinto the corresponding addressable response information groups  $RG_{n1}...RG_{nm}$  (57).

10 The server **PS** (18) and/or the client  $C_n$  (16) may also make additional optional requests  $QP_{n1}...QP_{nm}$  (58) of the optional databases 41 and/or 42 (also step 104-2 of FIGS. 70-1A and 70-1B), which may be optionally resident within the server **PS** (18) and/or the client  $C_n$  (16), and which may reply with the corresponding additional optional responses  $RA_{n1}...RA_{nm}$  (40). The server **PS** (18) and/or the client  $C_n$  (16)  
15 parse, and/or process, and/or format, and/or group, and/or organize each of the additional optional responses  $RA_{n1}...RA_{nm}$  (40) into the corresponding response information groups  $RC_{n1}...RC_{nm}$  (59) (also step 104-3 of FIGS. 70-1A and 70-1B).

Now, step 104-3 of FIGS. 70-1A and 70-1B is shown in more detail in FIG. 70-1-1.

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As discussed later, and shown in FIGS. 99-101, entity body  $RH_{nm}$  (353) of the response  $R_{nm}$  (32) has optional response individual information groups  $LS_{nm1}...LS_{nmr}$  (360).

Each of the optional response individual information groups **LS<sub>n11...LS<sub>nmr</sub></sub>** (360) and/or portions thereof therefrom the entity bodies **RH<sub>n1...RH<sub>nm</sub></sub>** (353) of the responses **R<sub>n1...R<sub>nm</sub></sub>** (32) may be optionally compared one with the other, and  
5 duplicate ones of the optional response individual information groups **LS<sub>n11...LS<sub>nmr</sub></sub>** (360) may be optionally discarded (step 104-3-1), as shown in FIG. 70-1-1.

The remaining optional response individual information groups **LS<sub>n11...LS<sub>nmr</sub></sub>** (360) are parsed, and/or processed, and/or formatted, and/or organized, and/or grouped  
10 therinto corresponding ones of the addressable individual information groups **LG<sub>n11...LG<sub>nmr</sub></sub>** (80) as the addressable individual information groups **LG<sub>n11...LG<sub>nmr</sub></sub>** (80) are incorporated therinto the addressable response information group s **RG<sub>n1...RG<sub>nm</sub></sub>** (57) therefrom the responses **R<sub>n1...R<sub>nm</sub></sub>** (32) (step 104-3-2), as shown in FIG. 70-1-1.

15 The addressable individual information groups **LG<sub>n11...LG<sub>nmr</sub></sub>** (80) are typically parsed, and/or processed, and/or formatted for consistency of presentation and/or appearance one with the other, as the addressable individual information groups **LG<sub>n11...LG<sub>nmr</sub></sub>** (80) are incorporated therinto the addressable response information  
20 group s **RG<sub>n1...RG<sub>nm</sub></sub>** (57) therefrom the responses **R<sub>n1...R<sub>nm</sub></sub>** (32).

The server **PS** (18) and/or the client **C<sub>n</sub>** (16) may formulate information from the current request group **QA<sub>nc</sub>** (50) having the corresponding queries **QQ<sub>n1...QQ<sub>nm</sub></sub>** (53)

and the corresponding server addresses  $AQ_{n1}...AQ_{nm}$  (54) into the corresponding request pointer/address group  $QZ_n$  (60) having the pointers/addresses  $PG_{n1}...PG_{nz}$  (61) associated therewith (step 104-4 of FIG. 70-1A with reference to FIGS. 59, 63, and 91). Alternatively and/or additionally, the server  $PS$  (18) and/or the client  $C_n$  (16) may formulate information from the current request group  $QA_{nc}$  (50) having the corresponding queries  $QQ_{n1}...QQ_{nm}$  (53) and the corresponding server addresses  $AQ_{n1}...AQ_{nm}$  (54) into a corresponding request pointer/address group  $QY_n$  (68) having the pointers/addresses  $PF_{n11}...PF_{nmr}$  (69) associated therewith (step 104-4 of FIG. 70-1B with reference to FIGS. 60 and 64).

The server  $PS$  (18) and/or the client  $C_n$  (16) may formulate the addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62) (step 104-5 of FIG. 70-1A with reference to FIGS. 59, 63, 91, 96, and typical ones of the addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62) in FIGS. 92 and 93), depending upon the grouping and/or sorting criteria used. Each of the pointers/addresses  $PG_{n1}...PG_{nz}$  (61) may be directed to point/address the corresponding addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62) associated therewith, which aid in obtaining information and/or services therefrom certain ones of addressable response information groups  $RG_{n1}...RG_{nm}$  (57) to be incorporated therein addressable query information groups  $GI_{n1}...GI_{nz}$  (63).

Each of the addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62) has the pointers/addresses  $PP_{n11}...PP_{nmr}$  (64) directed to address/point information therein the

addressable response information groups **RG<sub>n1</sub>...RG<sub>nm</sub> (57)** based upon the grouping and/or sorting criteria.

The grouping and/or sorting criteria may be incorporated therein to the optional  
5 instructions **VJ<sub>n1</sub>...VJ<sub>nk</sub> (52)**, which may be entered therein to the user interface **I<sub>n</sub> (14)** therethrough the user input **UI<sub>n</sub> (25)** by the user **U<sub>n</sub> (12)**. Grouping and/or sorting criteria may additionally and/or alternatively optionally resident within the server **PS (18)** and/or the client **C<sub>n</sub> (16)**.

10 The grouping and/or sorting criteria gives the user **U<sub>n</sub> (12)** the ability to formulate the query information groups **GI<sub>n1</sub>...GI<sub>nz</sub> (63)** and the way in which information and/or services from the addressable response information groups **RG<sub>n1</sub>...RG<sub>nm</sub> (57)** is presented to the user **U<sub>n</sub> (12)** therethrough the user interface **I<sub>n</sub> (14)**.

15 Information and/or services within each of the addressable response information groups **RG<sub>n1</sub>...RG<sub>nm</sub> (57)** is addressed therewith the pointers/addresses **PP<sub>n11</sub>...PP<sub>nmr</sub> (64)** therefrom the query pointer/address groups **QG<sub>n1</sub>...QG<sub>nz</sub> (62)**, and information and/or services therefrom the addressable response information groups **RG<sub>n1</sub>...RG<sub>nm</sub> (57)** is incorporated therein to the addressable query information groups **GI<sub>n1</sub>...GI<sub>nz</sub> (63)**  
20 corresponding to the pointers/addresses **PP<sub>n11</sub>...PP<sub>nmr</sub> (64)** (step 104-6 of FIG. 70-1A), which are formulated by the addressable query pointer/address groups **QG<sub>n1</sub>...QG<sub>nz</sub> (62)**, in accordance with the grouping and/or sorting criteria, as shown in FIG. 70-1A with reference to FIGS. 59, 63, 66A, 66B, 66C, 67 – 69, 91, 96, typical

ones of the addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62) in FIGS. 92 and 93, and a typical one of the addressable query information groups  $GI_{n1}...GI_{nz}$  (63), designated as the addressable query information group  $GI_{nz}$  (63), in FIG. 103.

5 Alternatively and/or additionally, each of the pointers/addresses  $PF_{n11}...PF_{nmr}$  (69) may directed to point/address the corresponding addressable response information groups  $RG_{n1}...RG_{nm}$  (57), and aid in obtaining information and/or services therefrom the corresponding addressable response information groups  $RG_{n1}...RG_{nm}$  (57) to be incorporated therein to the addressable query information groups  $GI_{n1}...GI_{nz}$  (63) (step  
10 **104-6**) as shown FIG. 70-1B with reference to FIGS. 60, 64, 66A, 66B, 66C, 67 – 69, and another typical one of the addressable query information groups  $GI_{n1}...GI_{nz}$  (63), designated as the addressable query information group  $GI_{nz}$  (63), in FIG. 104.

Now, step **104-6** of FIG. 70-1A is shown in more detail in FIG. 70-1-2A with reference  
15 to FIGS. 59, 63, 66A, 66B, 66C, 67 – 69, 91, 96, typical ones of the addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62) in FIGS. 92 and 93, and a typical one of the addressable query information groups  $GI_{n1}...GI_{nz}$  (63), designated as the addressable query information group  $GI_{nz}$  (63), in FIG. 103. Step **104-6** of FIG. 70-1B is shown in more detail in FIG. 70-1-2B with reference to FIGS. 60, 64, 66A, 66B, 66C, 67 – 69,  
20 and another typical one of the addressable query information groups  $GI_{n1}...GI_{nz}$  (63), designated as the addressable query information group  $GI_{nz}$  (63), in FIG. 104.

The optional addressable individual information groups  $LG_{n11} \dots LG_{nmr}$  (80) therein each of the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) may be addressed therewith the pointers/addresses  $PP_{n11} \dots PP_{nmr}$  (64) (step 104-6-1) as shown FIG. 70-1-2A with reference to FIGS. 59 and 63 and FIG. 70-1A.

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The optional addressable individual information groups  $LG_{n11} \dots LG_{nmr}$  (80) therein each of the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) may alternatively and/or additionally be addressed therewith the pointers/addresses  $PF_{n11} \dots PF_{nmr}$  (69) (step 104-6-1) as shown FIG. 70-1-2B with reference to FIGS. 60 and 64 and FIG. 70-1B.

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The addressed optional addressable individual information groups  $LG_{n11} \dots LG_{nmr}$  (80) an/or portions thereof may be optionally labelled with labels and/or identifiers and incorporated therewith the labelled individual information groups  $LL_{nz1} \dots LL_{nzu}$  (86) (step 104-6-2), as shown in FIGS. 70-1-2A and 70-1-2B.

The labelled individual information groups  $LL_{nz1} \dots LL_{nzu}$  (86) may be incorporated therewith certain ones of the addressable query information groups  $GI_{n1} \dots GI_{nz}$  (63), depending upon the grouping and/or sorting criteria (step 104-6-3), as shown in FIGS. 70-1-2A and 70-1-2B.

The addressed optional addressable individual information groups  $LG_{n11} \dots LG_{nmr}$  (80) an/or portions thereof are typically appended with the labels and/or identifiers, thus

creating the labelled individual information groups  $LL_{nz1} \dots LL_{nzu}$  (86), as each of the labelled individual information groups  $LL_{nz1} \dots LL_{nzu}$  (86) are incorporated thereinto the certain ones of the addressable query information groups  $GI_{n1} \dots GI_{nz}$  (63). The steps 104-6-2 and 104-6-3 are thus typically consolidated into a single step.

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The addressable query information groups  $GI_{n1} \dots GI_{nz}$  (63) may then be incorporated thereinto the service and/or information response  $IR_n$  (34) (step 104-7), as shown in FIGS. 70-1A and 70-1B with reference to FIG. 61, and/or the user service and/or information response  $ir_n$  (36) (also step 104-7), as also shown in FIGS. 70-1A and 70-1B but with reference to FIG. 65.

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The user  $U_n$  (12) reviews the user response  $UR_n$  (37) the user interface  $I_n$  (14) and/or selects additional services and/or information at step 106 in FIG. 70, and shown in more detail in FIG. 70-2. The step 106 will also be described in more detail with reference to FIGS. 1-141 of the drawings.

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The user  $U_n$  (12) selects additional services and/or information therethrough the user interface  $I_n$  (14) (step 106-1) or exits to the end of the process 99 at step 107. If the user  $U_n$  (12) selects additional services and/or information therethrough the user interface  $I_n$  (14) (step 106-1), the user  $U_n$  (12) may optionally enter one or more orders thereinto an order form and/or order forms thereat and therethrough the user interface  $I_n$  (14) (step 106-2). The order and/or orders may be, for example, for purchases, and/or instructions, and/or payment, and/or other information and/or services to be directed to

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and/or requested thereof third parties, and/or combinations thereof, of the optional servers **SO<sub>1</sub>...SO<sub>p</sub> (22)**, and/or the servers **S<sub>1</sub>...S<sub>z</sub> (20)**, and/or other ones of the clients **C<sub>1</sub>...C<sub>n</sub> (16)** therethrough the server **PS (18)** and/or the client **C<sub>n</sub> (16)**. The order and/or orders may, thus, be placed therethrough and thereby the server **PS (18)** and/or the client **C<sub>n</sub> (16)**, eliminating the need for the user **U<sub>n</sub> (12)** to place separate ones of the orders with the third parties, the optional servers **SO<sub>1</sub>...SO<sub>p</sub> (22)**, and/or the servers **S<sub>1</sub>...S<sub>z</sub> (20)** separately and/or individually.

The server **PS (18)** and/or the client **C<sub>n</sub> (16)** process the orders and/or communicate the orders to the third parties, the optional servers **SO<sub>1</sub>...SO<sub>p</sub> (22)**, and/or the servers **S<sub>1</sub>...S<sub>z</sub> (20)**, and/or other ones of the clients **C<sub>1</sub>...C<sub>n</sub> (16)** (step **106-3**). The server **PS (18)** and/or the client **C<sub>n</sub> (16)** confirm the order (step **106-4**). The user **U<sub>n</sub> (12)** may select additional services and/or information therethrough the user interface **I<sub>n</sub> (14)** (step **106-1**) or exit to the end of the process **99** at step **107**.

If the user **U<sub>n</sub> (12)** selects additional services and/or information therethrough the user interface **I<sub>n</sub> (14)** (step **106-1**), the user **U<sub>n</sub> (12)** may alternatively and/or additionally optionally enter information and/or service requests of the optional servers **SO<sub>1</sub>...SO<sub>p</sub> (22)**, and/or the servers **S<sub>1</sub>...S<sub>z</sub> (20)** therethrough the user interface **I<sub>n</sub> (14)** (step **106-5**) and/or exit to the end of the process **99** at step **107**.

If the user **U<sub>n</sub> (12)** selects additional services and/or information therethrough the user interface **I<sub>n</sub> (14)** (step **106-1**), the user **U<sub>n</sub> (12)** may alternatively and/or additionally

optionally enter additional requests as the user input  $UI_n$  (25) thereat and therethrough the user interface  $I_n$  (14) (step 106-6) and enter the process 99 at step 102.

## V. ADDITIONAL DETAILS

### 5 A. USER INPUT

The user input  $UI_n$  (25), which the user  $U_n$  (12) makes therethrough the user interface  $I_n$  (14), may have one or a plurality of the same and/or different ones of the queries  $QQ_{n1}...QQ_{nm}$  (53) to be made by the server  $PS$  (18) and/or the client  $C_n$  (16) of the same and/or different ones of the servers  $S_1...S_z$  (20), in accordance with the  
10 designation scheme which designates the servers  $S_1...S_z$  (20) to be communicated with corresponding to the requests  $Q_{n1}...Q_{nm}$  (29) as the corresponding server designations  $S_{n1}...S_{nm}$  (30) at the corresponding server addresses  $AQ_{n1}...AQ_{nm}$  (54).

The server  $PS$  (18) and/or the client  $C_n$  (16) parse, process, format, sort, group, and/or  
15 organize each of the responses  $R_{n1}...R_{nm}$  (32) to the corresponding requests  $Q_{n1}...Q_{nm}$  (29), received therefrom the servers  $S_1...S_z$  (20) designated by the server designations  $S_{n1}...S_{nm}$  (30), and/or each of the additional optional responses  $RA_{n1}...RA_{nm}$  (40) therefrom the server  $PS$  (18) and/or the client  $C_n$  (16). The parsed, processed, formatted, sorted, grouped, and/or organized results therefrom the server  $PS$   
20 (18) and/or the client  $C_n$  (16) are communicated thereto the user  $U_n$  (12) therethrough the user interface  $I_n$  (14) as the user response  $UR_n$  (37), which the user  $U_n$  (12) may

review, interact therewith, and/or select additional services and/or information therefrom.

The user  $U_n$  (12) enters the user input  $UI_n$  (25) having one or more of the same and/or  
5 different user requests  $qu_{n1}...qu_{nu}$  (26) thereinto user interface  $I_n$  (14), as shown in  
FIG. 3. The user requests  $qu_{n1}...qu_{nu}$  (26) are communicated from the user interface  
 $I_n$  (14) to the client  $C_n$  (16) within the user service and/or information request  $iq_n$  (27),  
having the user requests  $qu_{n1}...qu_{nu}$  (26) and other optional information.

10 The user  $U_n$  (12) may enter the user input  $UI_n$  (25) having one or more of the same  
and/or different user requests  $qu_{n1}...qu_{nu}$  (26) thereinto the service and/or information  
entry request form  $IE_n$  (38) at the user interface  $I_n$  (14), or thereinto the user interface  
 $I_n$  (14) therethrough other suitable means.

15 The user interfaces  $I_1...I_n$  (14) have suitable input means and/or suitable presentation  
and/or display means, which allow the corresponding users  $U_1...U_n$  (12) to  
communicate therewith the corresponding clients  $C_1...C_n$  (16). FIGS. 5A, 5B, and 6-  
10 show typical ones of the service and/or information entry request forms  $IE_1...IE_n$   
(38) at the user interfaces  $I_1...I_n$  (14), as graphical user interfaces (GUI's), which the  
20 users  $U_1...U_n$  (12) may enter the corresponding user inputs  $UI_1...UI_n$  (25) thereinto.  
FIGS. 71 and 72 are schematic representations of the service and/or information entry  
request form  $IE_n$  (38) showing fields, links, and elements of the service and/or  
information entry request form  $IE_n$  (38).

The user  $U_n$  (12) may enter the user input  $UI_n$  (25) thereinto the service and/or information entry request form  $IE_n$  (38) at the user interface  $I_n$  (14), as shown schematically in FIG. 71. The user input  $UI_n$  (25) may be entered as user input values  
5 thereinto fields or alternate request links of the service and/or information entry request form  $IE_n$  (38).

The user  $U_n$  (12) may enter the user input  $UI_n$  (25) as one or more of the same and/or different user requests  $qu_{n1}...qu_{nu}$  (26), which may have the query values  
10  $QV_{n1}...QV_{nu}$  (200), server name values  $AV_{n1}...AV_{nu}$  (201), optional instruction values  $VV_{n1}...VV_{nv}$  (202), and/or alternate request links  $QL_{n1}...QL_{na}$  (203), and/or server request links  $UL_{n1}...UL_{ns}$  (204), and/or the additional request links  
 $SL_{n1}...SL_{nw}$  (71) thereinto the service and/or information entry request form  $IE_n$  (38).

15 The user input  $UI_n$  (25), thus, has one or more of the same and/or different user requests  $qu_{n1}...qu_{nu}$  (26), which may be entered as the query values  $QV_{n1}...QV_{nu}$  (200) of the same and/or different servers  $S_1...S_z$  (20), designated in accordance with the designation scheme corresponding to the corresponding certain ones of the server designations  $S_{11}...S_{nm}$  (30) having the corresponding server name values  $AV_{n1}...AV_{nu}$   
20 (201), the optional instruction values  $VV_{n1}...VV_{nv}$  (202), and/or the alternate request links  $QL_{n1}...QL_{na}$  (203), and/or the server request links  $UL_{n1}...UL_{ns}$  (204), and/or the additional request links  $SL_{n1}...SL_{nw}$  (71) thereinto the service and/or information entry request form  $IE_n$  (38).

Each of the different user requests  $qu_{n1}...qu_{nu}$  (26) may be the same and/or different one from the other. Each of the query values  $QV_{n1}...QV_{nu}$  (200) may be the same and/or different one from the other. The query values  $QV_{n1}...QV_{nu}$  (200) may be entered for the same and/or different ones of the servers  $S_1...S_z$  (20). The optional instruction values  $VV_{n1}...VV_{nv}$  (202) may be the same and/or different one from the other.

The user  $U_n$  (12) may also enter the user input  $UI_n$  (25) and request services and/or information therethrough one of the alternate request links  $QL_{n1}...QL_{na}$  (203), or one of the server request links  $UL_{n1}...UL_{ns}$  (204), or one of the additional request links  $SL_{n1}...SL_{nw}$  (71) thereat the user interface  $I_n$  (14).

#### B. USER INTERFACE DETAILS

The client-server multitasking system 10 of the present invention may have any suitable user interface  $I_n$  (14) acceptable to and/or preferred by the user  $U_n$  (12), and acceptable to the client  $C_n$  (16). The user interface  $I_n$  (14) may be, for example, a graphical user interface, visual, aural, and/or tactile user interface, and/or combination thereof, or other suitable interface. The user interface  $I_n$  (14) may be integral with the client  $C_n$  (16) or separate therefrom.

The user interface  $I_n$  (14) may be hardware based, and/or computer based, and/or process based, and/or a combination thereof, and may be a graphical user interface, such as, for example, a browser and/or combinations thereof, varieties of which are commonly used on the internet.

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The service and/or information entry request form  $IE_n$  (38) may be optionally available to the user  $U_n$  (12) at the user interface  $I_n$  (14), or the user  $U_n$  (12) may optionally request the service and/or information entry request form  $IE_n$  (38) therethrough the user interface  $I_n$  (14).

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Now, as shown in FIGS. 5A, 5B, and 6-10 and schematically in FIGS. 71 and 72, the service and/or information entry request form  $IE_n$  (38) at the user interface  $I_n$  (14) has user client request fields  $QD_{n1}...QD_{nu}$  (206) accessible to the user  $U_n$  (12) and hidden client request elements  $HU_{n1}...HU_{nh}$  (207) hidden from the user  $U_n$  (12). The user client request fields  $QD_{n1}...QD_{nu}$  (206) accessible to the user  $U_n$  (12) has server requests portion 208, optional instructions portion 209, an optional execute request element 210, and alternate requests portion 212. The hidden client request elements  $HU_{n1}...HU_{nh}$  (207) hidden from the user  $U_n$  (12) have optional server requests portion 214, optional instructions portion 216, and optional information element  $HE_n$  (218).

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The server requests portion 208 of the user client request fields  $QD_{n1}...QD_{nu}$  (206) accessible to the user  $U_n$  (12) has server query fields  $QF_{n1}...QF_{nu}$  (220), which the

user  $U_n$  (12) may enter corresponding server query values  $QV_{n1}...QV_{nu}$  (200) thereinto, as a portion of the user input  $UI_n$  (25).

The user  $U_n$  (12) may also optionally enter the server name values  $AV_{n1}...AV_{nu}$  (201) thereinto server name fields  $AF_{n1}...AF_{nu}$  (224). The user  $U_n$  (12) may enter the server name values  $AV_{n1}...AV_{nu}$  (201) as another portion of the user input  $UI_n$  (25).

The user  $U_n$  (12) may also optionally enter the optional instruction values  $VV_{n1}...VV_{nv}$  (202) thereinto optional instruction fields  $VF_{n1}...VF_{nv}$  (228) of the optional instructions portion 209 of the user client request fields  $QD_{n1}...QD_{nu}$  (206) accessible to the user  $U_n$  (12). The user  $U_n$  (12) may enter the optional instruction values  $VV_{n1}...VV_{nv}$  (202) as yet another portion of the user input  $UI_n$  (25).

Upon the user  $U_n$  (12) entering the user input  $UI_n$  (25) of the server query values  $QV_{n1}...QV_{nu}$  (200) and/or the server name values  $AV_{n1}...AV_{nu}$  (201) and/or the optional instruction values  $VV_{n1}...VV_{nv}$  (202) thereinto the service and/or information entry request form  $IE_n$  (38) at the user interface  $I_n$  (14), the completed service and/or information request form  $IF_n$  (230) results, shown schematically in FIGS. 73 and 74.

The user  $U_n$  (12) may instruct the user interface  $I_n$  (14) to communicate the user service and/or information requests  $iq_n$  (27), shown in FIG. 74, having the server query values  $QV_{n1}...QV_{nu}$  (200) and/or the server name values  $AV_{n1}...AV_{nu}$  (201) and/or the optional instruction values  $VV_{n1}...VV_{nv}$  (202), from the already completed service

and/or information request form **IF<sub>n</sub> (230)** at the user interface **I<sub>n</sub> (14)** thereto the client **C<sub>n</sub> (16)** by entering the optional execute request element **210**, using a point and click device, such as a mouse, light pen, tactile monitor, by entering a carriage return, therethrough other user interface controls, or therethrough other suitable means. FIG. 75 shows a schematic representation of the user service and/or information request **iq<sub>n</sub> (27)**.

The user **U<sub>n</sub> (12)** may alternatively enter the alternate request links **QL<sub>n1</sub>...QL<sub>na</sub> (203)** or the server request links **UL<sub>n1</sub>...UL<sub>ns</sub> (204)** or the additional request links **SL<sub>n1</sub>...SL<sub>nw</sub> (71)** thereinto the service and/or information entry request form **IE<sub>n</sub> (38)** therewith a point and click device, such as a mouse, a light pen, tactile monitor, or therewith alternative and/or other user interface controls or other suitable means, and instruct the user interface **I<sub>n</sub> (14)** to communicate the user service and/or information request **iq<sub>n</sub> (27)**, having information associated with the alternate request links **QL<sub>n1</sub>...QL<sub>na</sub> (203)** or the server request links **UL<sub>n1</sub>...UL<sub>ns</sub> (204)** or the additional request links **SL<sub>n1</sub>...SL<sub>nw</sub> (71)**, thereto the client **C<sub>n</sub> (16)**.

The server name fields **AF<sub>n1</sub>...AF<sub>nu</sub> (224)** and the optional instruction fields **VF<sub>n1</sub>...VF<sub>nv</sub> (228)** of the service and/or information entry request form **IE<sub>n</sub> (38)** may optionally have the server name values **AV<sub>n1</sub>...AV<sub>nu</sub> (201)** and/or the optional instruction values **VV<sub>n1</sub>...VV<sub>nv</sub> (202)** entered thereinto, respectively, as changeable and/or fixed pre-set or preselected values, drop down menu selections, and/or as blank fields, or a combination thereof. The preselected values may be replaced with values of



the user's **U<sub>n</sub> (12)** choice or may remain fixed, depending upon choices offered therein the service and/or information entry request form **IE<sub>n</sub> (38)**. The drop down menu selections may be changed to ones of a number of preselected choices offered in the drop down menu selections, which the user **U<sub>n</sub> (12)** may optionally scroll through to  
5 determine which choice to make. Blank ones of the server name fields **AF<sub>n1</sub>...AF<sub>nu</sub> (224)** and/or blank ones of the optional instruction fields **VF<sub>n1</sub>...VF<sub>nv</sub> (228)** allow the user **U<sub>n</sub> (12)** to optionally enter the server name values **AV<sub>n1</sub>...AV<sub>nu</sub> (201)** and/or the optional instruction values **VV<sub>n1</sub>...VV<sub>nv</sub> (202)**, respectively, therein, accordingly.

10 The server query fields **QF<sub>n1</sub>...QF<sub>nu</sub> (220)**, which the user **U<sub>n</sub> (12)** enters the corresponding server query values **QV<sub>n1</sub>...QV<sub>nu</sub> (200)** thereinto, therethrough the user input **UI<sub>n</sub> (25)**, may also have changeable and/or fixed preselected values, drop down menu selections, and/or blank fields, or a combination thereof. However, the server query fields **QF<sub>n1</sub>...QF<sub>nu</sub> (220)** may generally be presented to the user **U<sub>n</sub> (12)** as  
15 blank fields, at least for the first user input **UI<sub>n</sub> (25)**.

The alternate requests portion **212** of the user client request fields **QD<sub>n1</sub>...QD<sub>nu</sub> (206)** accessible to the user **U<sub>n</sub> (12)** has the alternate request links **QL<sub>n1</sub>...QL<sub>na</sub> (203)**, the server request links **UL<sub>n1</sub>...UL<sub>ns</sub> (204)**, and the additional request links **SL<sub>n1</sub>...SL<sub>nw</sub> (71)**. The user **U<sub>n</sub> (12)** may alternatively request services and/or information  
20 therethrough one of the alternate request links **QL<sub>n1</sub>...QL<sub>na</sub> (203)**, or one of the server request links **UL<sub>n1</sub>...UL<sub>ns</sub> (204)**, or one of the additional request links **SL<sub>n1</sub>...SL<sub>nw</sub> (71)**.

The alternate request links **QL<sub>n1</sub>...QL<sub>na</sub> (203)** allow the user **U<sub>n</sub> (12)** to make the service and/or information request **IQ<sub>1</sub>...IQ<sub>n</sub> (28)** with preconfigured optional default selections already placed therein the service and/or information request **IQ<sub>1</sub>...IQ<sub>n</sub> (28)** for the user **U<sub>n</sub> (12)**. The server request links **UL<sub>n1</sub>...UL<sub>nw</sub> (204)** may be advertisements, advertising links, and/or links to ones of the optional servers **SO<sub>1</sub>...SO<sub>p</sub> (22)**. The user **U<sub>n</sub> (12)** may, for example, make requests for additional services and/or information therefrom ones of the optional servers **SO<sub>1</sub>...SO<sub>p</sub> (22)**, using the server request links **UL<sub>n1</sub>...UL<sub>nw</sub> (204)**. The additional request links **SL<sub>n1</sub>...SL<sub>nw</sub> (71)** allow the user **U<sub>n</sub> (12)** to make additional optional selections, based upon information and/or services previously requested by the user **U<sub>n</sub> (12)**.

The optional server requests portion **214** of the hidden client request elements **HU<sub>n1</sub>...HU<sub>nh</sub> (207)** hidden from the user **U<sub>n</sub> (12)** has hidden query elements **Qh<sub>n1</sub>...Qh<sub>nh</sub> (236)** and corresponding associated hidden server name elements **Ah<sub>n1</sub>...Ah<sub>nh</sub> (238)**. The optional instructions portion **216** of the hidden client request elements **HU<sub>n1</sub>...HU<sub>nh</sub> (207)** hidden from the user **U<sub>n</sub> (12)** may have optional hidden instruction elements **Vh<sub>n1</sub>...Vh<sub>ni</sub> (240)**. The hidden client request elements **HU<sub>n1</sub>...HU<sub>nh</sub> (207)** hidden from the user **U<sub>n</sub> (12)** may also have the hidden optional information element **HE<sub>n</sub> (218)**, which may have optional information and/or statistics.

The user **U<sub>n</sub> (12)** may, thus, request the services and/or information by completing entry of the server requests portion **208** and the optional instructions portion **209**

therewith the optional execute request element **210**, after entering the server query values **QV<sub>n1</sub>...QV<sub>nu</sub> (200)** and/or the server name values **AV<sub>n1</sub>...AV<sub>nu</sub> (201)** and/or the optional instruction values **VV<sub>n1</sub>...VV<sub>nv</sub> (202)**, or by alternatively requesting the services and/or information therethrough one of the alternate request links **QL<sub>n1</sub>...QL<sub>na</sub> (203)**, or one of the server request links **UL<sub>n1</sub>...UL<sub>ns</sub> (204)**, or one of the additional request links **SL<sub>n1</sub>...SL<sub>nw</sub> (71)**.

Upon completion of the user input **U<sub>n</sub> (25)**, the completed service and/or information request form **IF<sub>n</sub> (230)**, as shown in FIGS. 73 and 74, has user client request elements **QM<sub>n1</sub>...QM<sub>nu</sub> (246)** accessible to the user **U<sub>n</sub> (12)** having server request elements **242** and optional instruction elements **VE<sub>n1</sub>...VE<sub>nv</sub> (244)**; and/or alternate request elements **248** of the user client request elements **QM<sub>n1</sub>...QM<sub>nu</sub> (246)** accessible to the user **U<sub>n</sub> (12)**; and/or optional server request elements **250**, optional instruction elements **252**, and/or hidden client request elements **HP<sub>n1</sub>...HP<sub>nn</sub> (256)** hidden from the user **U<sub>n</sub> (12)**.

The user **U<sub>n</sub> (12)** may instruct the user interface **I<sub>n</sub> (14)** to communicate the user service and/or information request **iq<sub>n</sub> (27)** derived from the service and/or information request form **IF<sub>n</sub> (230)** to the client **C<sub>n</sub> (16)**, as shown in FIG. 75, therewith the optional execute request element **210** or therewith the other suitable means; or the user **U<sub>n</sub> (12)** may alternatively communicate the user service and/or information request **iq<sub>n</sub> (27)** by entering the alternate request links **QL<sub>n1</sub>...QL<sub>na</sub> (203)** or the server request links **UL<sub>n1</sub>...UL<sub>ns</sub> (204)** or the additional request links **SL<sub>n1</sub>...SL<sub>nw</sub> (71)** thereinto the

service and/or information entry request form **IE<sub>n</sub> (38)** or thereinto the completed service and/or information request form **IF<sub>n</sub> (230)** therewith a point and click device, such as a mouse, a light pen, tactile monitor, or therewith alternative and/or other user interface controls or other suitable means, and instruct the user interface **I<sub>n</sub> (14)** to

5 communicate the user service and/or information request **iq<sub>n</sub> (27)**, having information associated with the alternate request links **QL<sub>n1</sub>...QL<sub>na</sub> (203)** or the server request links **UL<sub>n1</sub>...UL<sub>ns</sub> (204)** or the additional request links **SL<sub>n1</sub>...SL<sub>nw</sub> (71)**, thereto the client **C<sub>n</sub> (16)**.

10 FIGS. 73 and 74 are schematic representations of the completed service and/or information entry request form **IF<sub>n</sub> (230)** showing typical elements, values, field names, name-value pairs, optional instructions, and alternate requests, resulting from the user **U<sub>n</sub> (12)** entering the user input **UI<sub>n</sub> (25)** of the server query values **QV<sub>n1</sub>...QV<sub>nu</sub> (200)** and/or the server name values **AV<sub>n1</sub>...AV<sub>nu</sub> (201)** and/or the

15 optional instruction values **VV<sub>n1</sub>...VV<sub>nv</sub> (202)** thereinto the service and/or information entry request form **IE<sub>n</sub> (38)** at the user interface **I<sub>n</sub> (14)**.

Now, the completed service and/or information entry request form **IF<sub>n</sub> (230)** has the user client request elements **QM<sub>n1</sub>...QM<sub>nu</sub> (246)** accessible to the user **U<sub>n</sub> (12)** having

20 the server request elements **242**, which has query elements **QE<sub>n1</sub>...QE<sub>nu</sub> (258)** and corresponding associated server name elements **AE<sub>n1</sub>...AE<sub>nu</sub> (260)**.

Each of the query elements  $QE_{n1} \dots QE_{nu}$  (258) have query field names  $QN_{n1} \dots QN_{nu}$  (262) of the associated corresponding server query fields  $QF_{n1} \dots QF_{nu}$  (220) and the corresponding server query values  $QV_{n1} \dots QV_{nu}$  (200) associated therewith, which the requests  $Q_{11} \dots Q_{nm}$  (29) may be derived therefrom.

5

Each of the server name elements  $AE_{n1} \dots AE_{nu}$  (260) have server field names  $AN_{n1} \dots AN_{nm}$  (264) of the associated corresponding server name fields  $AF_{n1} \dots AF_{nu}$  (224) and the corresponding server name values  $AV_{n1} \dots AV_{nu}$  (201) associated therewith, which server addresses  $A_{n1} \dots A_{nu}$  (265) may be derived therefrom.

10

The user client request elements  $QM_{n1} \dots QM_{nu}$  (246) accessible to the user  $U_n$  (12) also have the optional instruction elements  $VE_{n1} \dots VE_{nv}$  (244) having optional instruction field names  $VN_{n1} \dots VN_{nv}$  (266) of the associated corresponding optional instruction fields  $VF_{n1} \dots VF_{nv}$  (228) and the corresponding optional instruction values  $VV_{n1} \dots VV_{nv}$  (202) associated therewith.

15

The user client request elements  $QM_{n1} \dots QM_{nu}$  (246) accessible to the user  $U_n$  (12) also have the alternate request elements 246 having the alternate request links  $QL_{n1} \dots QL_{na}$  (203), or the server request links  $UL_{n1} \dots UL_{ns}$  (204), or the additional request links  $SL_{n1} \dots SL_{nw}$  (71).

20

The hidden client request elements  $HP_{n1} \dots HP_{nh}$  (256) hidden from the user  $U_n$  (12) have the hidden query elements  $Qh_{n1} \dots Qh_{nh}$  (236), which may have hidden query

field names  $Q_{n1}...Q_{nh}$  (268) and corresponding hidden query values  $Qv_{n1}...Qv_{nh}$  (270) associated therewith. The hidden server name elements  $A_{h_{n1}}...A_{h_{nh}}$  (238) may have hidden server field names  $A_{n1}...A_{nh}$  (272) and corresponding server hidden request name values  $Av_{n1}...Av_{nh}$  (274) associated therewith.

5

The hidden client request elements  $HP_{n1}...HP_{nh}$  (256) hidden from the user  $U_n$  (12) may also have the optional hidden instruction elements  $V_{h_{n1}}...V_{h_{ni}}$  (240), which may have optional hidden instruction field names  $V_{n1}...V_{ni}$  (275) and corresponding optional hidden instruction values  $Vv_{n1}...Vv_{ni}$  (276) associated therewith. The hidden client request elements  $HP_{n1}...HP_{nh}$  (256) hidden from the user  $U_n$  (12) may also have the hidden optional information element  $HE_n$  (218), which may have optional hidden information element field name  $J_{n1}$  (277) and optional hidden information element value  $Jv_n$  (278) associated therewith.

15 Now again, the user interfaces  $I_1...I_n$  (14) may each be different, one from the other, or the same, and may change characteristics over time. Each of the user interfaces  $I_1...I_n$  (14) may change characteristics as a function of time, information, and/or instructions, and/or other means, which may be derived by the users  $U_1...U_n$  (12) and/or the clients  $C_1...C_n$  (16) and/or the servers  $S_1...S_z$  (20), and/or the server  $PS$  (18), and/or the optional servers  $SO_1...SO_p$  (22), and/or derived within the user interfaces  $I_1...I_n$  (14).  
20 The user interface  $I_1...I_n$  (14) may change state.

The user interface  $I_1 \dots I_n$  (14) may also change as a function of optional timers and/or timed instructions associated therewith the user interfaces  $I_1 \dots I_n$  (14), and/or associated therewith the clients  $C_1 \dots C_n$  (16) and/or associated therewith the servers  $S_1 \dots S_z$  (20), and/or associated therewith the server **PS** (18), and/or associated therewith the optional servers  $SO_1 \dots SO_p$  (22), and/or instructions from the user  $U_1 \dots U_n$  (12). Changes in the user interface  $I_n$  (14) may appear continuous to the user  $U_n$  (12), spaced in time, staccato, or static depending upon the optional timers and/or the timed instructions.

Other conditions may change the user interface  $I_1 \dots I_n$  (14), as well.

The user interfaces  $I_1 \dots I_n$  (14) may be updated continuously, intermittently, manually, randomly, semi-automatically, automatically, repetitively, non-repetitively, singly, plurally, multiplexed, and/or a combination thereof or other suitable manner.

The user interfaces  $I_1 \dots I_n$  (14) may be visual, such as graphical user interfaces, aural, and/or tactile, a combination thereof, and/or other suitable means. The user interfaces  $I_1 \dots I_n$  (14) may be integral with the clients  $C_1 \dots C_n$  (16) or separate therefrom.

The user interfaces  $I_1 \dots I_n$  (14) may change in response to the user inputs  $UI_1 \dots UI_n$  (25), the service and/or information entry request forms  $IE_1 \dots IE_n$  (38) at the user interfaces  $I_1 \dots I_n$  (14), the completed service and/or information request forms  $IF_n$  (230), the user service and/or information requests  $iq_1 \dots iq_n$  (27), the optional execute request elements 210, accessing the alternate request links  $QL_{11} \dots QL_{1a}$  (203), accessing the server request links  $UL_{11} \dots UL_{1s}$  (204), accessing the additional request

links  $SL_{11}...SL_{1w}$  (71), the service and/or information responses  $IR_1...IR_n$  (34), the service and/or information response forms  $IS_1...IS_n$  (39). Other conditions may change the user interface  $I_1...I_n$  (14), as well.

- 5 Portions of the user responses  $UR_1...UR_n$  (37) may be mapped into and/or onto different portions of the user interfaces  $I_1...I_n$  (14) to facilitate interaction with and the needs of each of the users  $U_1...U_n$  (12). Such mappings may be optionally customized by the users  $U_1...U_n$  (12).

10 **C. SERVICE AND/OR INFORMATION REQUEST DETAILS**

Each of the users  $U_1...U_n$  (12) communicate the corresponding user service and/or information requests  $iq_1...iq_n$  (27) therethrough the corresponding user interfaces  $I_1...I_n$  (14) to the corresponding clients  $C_1...C_n$  (16), which optionally format the corresponding user service and/or information requests  $iq_1...iq_n$  (27) into the  
15 corresponding service and/or information requests  $IQ_1...IQ_n$  (28), as required.

Now, again, the user  $U_n$  (12) may instruct the user interface  $I_n$  (14) to communicate the user service and/or information requests  $iq_n$  (27), having the server query values  $QV_{n1}...QV_{nu}$  (200) and/or the server name values  $AV_{n1}...AV_{nu}$  (201) and/or the  
20 optional instruction values  $VV_{n1}...VV_{nv}$  (202), from the already completed service and/or information request form  $IF_n$  (230) at the user interface  $I_n$  (14) thereto the client  $C_n$  (16) by entering the optional execute request element 210, using a point and click



device, such as a mouse, light pen, tactile monitor, by entering a carriage return, therethrough other user interface controls, or therethrough other suitable means. FIG. 75 shows a schematic representation of the user service and/or information request  $iq_n$  (27).

5

The user  $U_n$  (12) may alternatively enter the alternate request links  $QL_{n1} \dots QL_{na}$  (203) or the server request links  $UL_{n1} \dots UL_{ns}$  (204) or the additional request links  $SL_{n1} \dots SL_{nw}$  (71) thereto the service and/or information entry request form  $IE_n$  (38) therewith a point and click device, such as a mouse, a light pen, tactile monitor, or therewith alternative and/or other user interface controls or other suitable means, and instruct the user interface  $I_n$  (14) to communicate the user service and/or information request  $iq_n$  (27), having information associated with the alternate request links  $QL_{n1} \dots QL_{na}$  (203) or the server request links  $UL_{n1} \dots UL_{ns}$  (204) or the additional request links  $SL_{n1} \dots SL_{nw}$  (71), thereto the client  $C_n$  (16).

15

The user service and/or information request  $iq_n$  (27) is communicated from the user interface  $I_n$  (14) to the client  $C_n$  (16), which acts upon the user service and/or information request  $iq_n$  (27) to derive the service and/or information request  $IQ_n$  (28) therefrom. FIGS. 75-80 are schematic representations of the service and/or information request  $IQ_n$  (28) and/or the user service and/or information request  $iq_n$  (27).

20

The service and/or information request  $IQ_n$  (28) has information and/or elements, which may be used by the server  $PS$  (18) to make the requests  $Q_{n1} \dots Q_{nm}$  (29) of the

servers  $S_1 \dots S_z$  (20), in accordance with the designation scheme which designates the ones of the servers  $S_1 \dots S_z$  (20) to be communicated with corresponding to the requests  $Q_{11} \dots Q_{nm}$  (29) as the corresponding server designations  $S_{11} \dots S_{nm}$  (30). The client  $C_n$  (16) may additionally and/or alternatively make the requests  $Q_{n1} \dots Q_{nm}$  (29) of the  
5 servers  $S_1 \dots S_z$  (20), using information and/or elements within the user service and/or information request  $iq_n$  (27).

The service and/or information request  $IQ_n$  (28) has user client requests  $QC_{n1} \dots QC_{nu}$  (280) accessible to the user  $U_n$  (12) and hidden client requests  $HC_{n1} \dots HC_{nh}$  (281)  
10 hidden from the user  $U_n$  (12).

The user client requests  $QC_{n1} \dots QC_{nu}$  (280) accessible to the user  $U_n$  (12) and/or the hidden client requests  $HC_{n1} \dots HC_{nh}$  (281) hidden from the user  $U_n$  (12) have address and/or location information and/or instructions, and/or other information corresponding  
15 to information and/or services to be requested of the servers  $S_1 \dots S_z$  (20), and/or information and/or instructions to be utilized by the server  $PS$  (18) and/or ones of the clients  $C_1 \dots C_n$  (16).

The user client requests  $QC_{n1} \dots QC_{nu}$  (280) accessible to the user  $U_n$  (12) have server  
20 requests portion  $SQ_n$  (282), optional instructions portion  $V_n$  (283), and alternate request portion  $AL_n$  (284).

The hidden client requests  $HC_{n1}...HC_{nh}$  (281) hidden from the user  $U_n$  (12) has optional hidden server requests portion  $HQ_n$  (285), optional hidden instructions portion  $HO_n$  (286), and optional hidden information portion  $J_n$  (287).

5 The server requests portion  $SQ_n$  (282) of the service and/or information request  $IQ_n$  (28) has queries  $QS_{n1}...QS_{nu}$  (288), which may be derived from the query field names  $QN_{n1}...QN_{nu}$  (262) and the corresponding server query values  $QV_{n1}...QV_{nu}$  (200) of the query elements  $QE_{n1}...QE_{nu}$  (258).

10 The server requests portion  $SQ_n$  (282) of the service and/or information request  $IQ_n$  (28) may also have the server addresses  $A_{n1}...A_{nu}$  (265), which may be derived from the server field names  $AN_{n1}...AN_{nm}$  (264) and the corresponding server name values  $AV_{n1}...AV_{nu}$  (201) of the server name elements  $AE_{n1}...AE_{nu}$  (260).

15 The optional instructions portion  $VO_n$  (283) of the user client requests  $QC_{n1}...QC_{nu}$  (280) accessible to the user  $U_n$  (12) of the service and/or information request  $IQ_n$  (28) may have optional instructions  $V_{n1}...V_{nv}$  (289), which may be derived from the optional instruction field names  $VN_{n1}...VN_{nv}$  (266) and the corresponding optional instruction values  $VV_{n1}...VV_{nv}$  (202). The optional instructions  $V_{n1}...V_{nv}$  (289) may  
20 optionally be used by the client  $C_n$  (16) and/or the server  $PS$  (18), and/or incorporated into the requests  $Q_{n1}...Q_{nm}$  (29) to be made of the servers  $S_1...S_z$  (20) designated by the server designations  $S_{n1}...S_{nm}$  (30), corresponding to the requests  $Q_{n1}...Q_{nm}$  (29) associated with the user  $U_n$  (12).

The alternate request portion  $AL_n$  (284) of the user client requests  $QC_{n1}...QC_{nu}$  (280) accessible to the user  $U_n$  (12) of the service and/or information request  $IQ_n$  (28) may be derived from one of the alternate request links  $QL_{n1}...QL_{na}$  (203), or one of the  
5 server request links  $UL_{n1}...UL_{ns}$  (204), or one of the additional request links  $SL_{n1}...SL_{nw}$  (71).

The optional hidden server requests portion  $HQ_{n1}...HQ_{nh}$  (281) of the hidden client requests  $HC_{n1}...HC_{nh}$  (281) hidden from the user  $U_n$  (12) may have hidden queries  
10  $QH_{n1}...QH_{nh}$  (290) and corresponding hidden server addresses  $AH_{n1}...AH_{nh}$  (291).

The hidden queries  $QH_{n1}...QH_{nh}$  (290) of the optional hidden server requests portion  $HQ_{n1}...HQ_{nh}$  (281) of the service and/or information request  $IQ_n$  (28) may be derived from the hidden query field names  $Qn_{n1}...Qn_{nh}$  (268) and the corresponding hidden  
15 query values  $Qv_{n1}...Qv_{nh}$  (270).

The hidden server addresses  $AH_{n1}...AH_{nh}$  (291) of the optional hidden server requests portion  $HQ_{n1}...HQ_{nh}$  (281) of the service and/or information request  $IQ_n$  (28) may be derived from the hidden server field names  $An_{n1}...An_{nh}$  (272) and the corresponding  
20 server hidden server name values  $Av_{n1}...Av_{nh}$  (274).

The hidden queries  $QH_{n1}...QH_{nh}$  (290) may optionally be appended to the queries  $QS_{n1}...QS_{nu}$  (288) to be made of the servers  $S_1...S_z$  (20). The hidden server

addresses  $AH_{n1} \dots AH_{nh}$  (291) may optionally be appended to the server addresses  $A_{n1} \dots A_{nu}$  (265). The appended queries  $QS_{n1} \dots QS_{nu}$  (288) may then be made of the servers  $S_1 \dots S_z$  (20) designated by the server designations  $S_{n1} \dots S_{nm}$  (30), corresponding to the resulting appended requests  $Q_{n1} \dots Q_{nm}$  (29) associated with the user  $U_n$  (12), in accordance with the appended server addresses  $A_{n1} \dots A_{nu}$  (265).

The appended requests  $Q_{n1} \dots Q_{nm}$  (29) will hereinafter be used synonymously with the requests  $Q_{n1} \dots Q_{nm}$  (29), the appended queries  $QS_{n1} \dots QS_{nu}$  (288) will hereinafter be used synonymously with the queries  $QS_{n1} \dots QS_{nu}$  (288), and the appended server addresses  $A_{n1} \dots A_{nu}$  (265) will hereinafter be used synonymously with the server addresses  $A_{n1} \dots A_{nu}$  (265).

The optional hidden instructions portion  $HO_n$  (286) of the hidden client requests  $HC_{n1} \dots HC_{nh}$  (281) hidden from the user  $U_n$  (12) of the service and/or information request  $IQ_n$  (28) have optional hidden instructions  $H_{n1} \dots H_{ni}$  (292), which may be derived from the hidden instruction field names  $V_{n1} \dots V_{ni}$  (275) and the corresponding optional hidden instruction values  $VV_{n1} \dots VV_{ni}$  (276). The optional hidden instructions  $H_{n1} \dots H_{ni}$  (292) may optionally be appended to the optional instructions  $V_{n1} \dots V_{nv}$  (289) and/or may optionally be used by the client  $C_n$  (16) and/or the server  $PS$  (18), and/or incorporated into the requests  $Q_{n1} \dots Q_{nm}$  (29) to be made of the servers  $S_1 \dots S_z$  (20) designated by the server designations  $S_{n1} \dots S_{nm}$  (30), corresponding to the requests  $Q_{n1} \dots Q_{nm}$  (29) associated with the user  $U_n$  (12). The

appended instructions  $V_{n1}...V_{nv}$  (289) will hereinafter be used synonymously with the instructions  $V_{n1}...V_{nv}$  (289).

The optional hidden information portion  $J_n$  (287) of the hidden client requests

5  $HC_{n1}...HC_{nh}$  (281) hidden from the user  $U_n$  (12) of the service and/or information request  $IQ_n$  (28) may be derived from the optional hidden information element field name  $J_n$  (277) and the optional hidden information element value  $Jv_n$  (278), and may optionally be used by the client  $C_n$  (16) and/or the server  $PS$  (18), and/or incorporated into the requests  $Q_{n1}...Q_{nm}$  (29) to be made of the servers  $S_1...S_z$  (20) designated by the server designations  $S_{n1}...S_{nm}$  (30), corresponding to the requests  $Q_{n1}...Q_{nm}$  (29) associated with the user  $U_n$  (12).

Now, again, each of the users  $U_1...U_n$  (12) communicate the corresponding user service and/or information requests  $iq_1...iq_n$  (27) therethrough the corresponding user  
15 interfaces  $I_1...I_n$  (14) to the corresponding clients  $C_1...C_n$  (16), which optionally format the corresponding user service and/or information requests  $iq_1...iq_n$  (27) into the corresponding service and/or information requests  $IQ_1...IQ_n$  (28), as required.

The user service and/or information requests  $iq_1...iq_n$  (27) may be communicated  
20 therefrom the completed service and/or information entry request forms  $IF_1...IF_n$  (230) at the user interfaces  $I_1...I_n$  (14) thereto the clients  $C_1...C_n$  (16) or alternatively therefrom the service and/or information entry request forms  $IE_1...IE_n$  (38) at the corresponding the user interfaces  $I_1...I_n$  (14) therethrough the alternate request links

**QL<sub>11</sub>...QL<sub>na</sub> (203)** or the server request links **UL<sub>11</sub>...UL<sub>ns</sub> (204)** or the additional request links **SL<sub>11</sub>...SL<sub>nw</sub> (71)**.

The user service and/or information requests **iq<sub>1</sub>...iq<sub>n</sub> (27)** may be communicated as  
5 the elements, values, field names, optional instructions, and/or alternate requests entered thereinto the completed service and/or information entry request form **IF<sub>n</sub> (230)** therefrom the corresponding user interfaces **I<sub>1</sub>...I<sub>n</sub> (14)** to the corresponding clients **C<sub>1</sub>...C<sub>n</sub> (16)**.

THESE

10 The users **U<sub>1</sub>...U<sub>n</sub> (12)** may, thus, communicate the corresponding user service and/or information requests **iq<sub>1</sub>...iq<sub>n</sub> (27)** to the clients **C<sub>1</sub>...C<sub>n</sub> (16)** therethrough the user interfaces **I<sub>1</sub>...I<sub>n</sub> (14)**, upon entering the corresponding user inputs **UI<sub>1</sub>...UI<sub>n</sub> (25)** thereinto the corresponding service and/or information entry request forms **IE<sub>1</sub>...IE<sub>n</sub> (38)** at the corresponding the user interfaces **I<sub>1</sub>...I<sub>n</sub> (14)**. The completed service and/or  
15 information entry request forms **IF<sub>1</sub>...IF<sub>n</sub> (230)** are derived therefrom the user inputs **UI<sub>1</sub>...UI<sub>n</sub> (25)** having the corresponding user service and/or information requests **iq<sub>1</sub>...iq<sub>n</sub> (27)**, which may be entered as values or alternate requests thereinto the corresponding service and/or information entry request forms **IE<sub>1</sub>...IE<sub>n</sub> (38)**.

20 The user **U<sub>1</sub>...U<sub>n</sub> (12)** may alternatively communicate the user service and/or information requests **iq<sub>1</sub>...iq<sub>n</sub> (27)** by entering the alternate request links **QL<sub>11</sub>...QL<sub>na</sub> (203)** or the server request links **UL<sub>11</sub>...UL<sub>ns</sub> (204)** or the additional request links **SL<sub>11</sub>...SL<sub>nw</sub> (71)** thereinto the service and/or information entry request form **IE<sub>1</sub>...IE<sub>n</sub>**

(38) or thereinto the completed service and/or information request form  $IF_1...IF_n$  (230).

The server  $PS$  (18) and/or the  $C_n$  (16) may alternatively and/or additionally use  
5 information resident within the server  $PS$  (18) and/or the client  $C_n$  (16), such as  
default information, and/or information communicated therefrom the user  $U_n$  (12)  
therethrough the user interface  $I_n$  (14) to the client  $C_n$  (16) to make the requests  
 $Q_{n1}...Q_{nm}$  (29) of the servers  $S_1...S_z$  (20), in accordance with the designation scheme  
which designates the ones of the servers  $S_1...S_z$  (20) to be communicated with  
10 corresponding to the requests  $Q_{n1}...Q_{nm}$  (29) as the corresponding server designations  
 $S_{11}...S_{nm}$  (30).

FIG. 81 is a schematic representation showing queries  $QQ_{n1}...QQ_{nm}$  (53) and  
corresponding server addresses  $AQ_{n1}...AQ_{nm}$  (54). FIGS. 82-85 shows the schematic  
15 representation of FIG. 81 having typical values.

#### D. OPTIONAL INSTRUCTIONS

Typically, information within the optional instructions  $V_{11}...V_{nv}$  (289), and/or the  
optional hidden instructions  $H_{11}...H_{ni}$  (292), and/or the optional hidden information  
20 portion  $J_n$  (287) are used by the server  $PS$  (18) and/or specific ones of the clients  
 $C_1...C_n$  (16), but may also be used by the servers  $S_1...S_z$  (20).



Now, in yet more detail, the user inputs  $UI_1...UI_n$  (25) may have one or more of the same and/or different optional instruction values  $VV_{11}...VV_{nv}$  (202). The optional instruction values  $VV_{11}...VV_{nv}$  (202) may typically have instructions, which may be used by the server **PS** (18) and/or the clients  $C_1...C_n$  (16), such as, for example, as  
5 instructions on how to request, organize, present and/or display, and/or retrieve services and/or information from the servers  $S_1...S_z$  (20) and/or other suitable instructions.

Typical information that may be incorporated into the optional instruction values  $VV_{n1}...VV_{nv}$  (202) may include, for example, Searches per Group **311** and Group **312**,  
10 shown in FIGS. 5A, 5B, and 6-10 for a particular one of the service and/or information entry request forms  $IE_n$  (38) at the user interface  $I_n$  (14) shown in FIGS. 75-80.

The Searches per Group **311** is considered to be the number of the server query values  $QV_{n1}...QV_{nu}$  (200), associated therewith corresponding ones of the server name values  
15  $AV_{n1}...AV_{nu}$  (201), corresponding to the requests  $Q_{n1}...Q_{nm}$  (29) to make of the servers  $S_1...S_z$  (20). The Group **312** is considered to be the group of the server query values  $QV_{n1}...QV_{nu}$  (200) to communicate thereto ones of the servers  $S_1...S_z$  (20) associated therewith the corresponding ones of the server name values  $AV_{n1}...AV_{nu}$  (201), in accordance with the designation scheme corresponding to the corresponding  
20 ones of the server designations  $S_{n1}...S_{nm}$  (30), corresponding to the requests  $Q_{n1}...Q_{nm}$  (29).

Page **313**, which includes certain service and/or information location information, which may be incorporated into the requests  $Q_{n1} \dots Q_{nm}$  (**29**) to be made of the associated corresponding ones of the servers  $S_1 \dots S_z$  (**20**), in accordance with the designation scheme corresponding to the corresponding ones of the server designations  $S_{n1} \dots S_{nm}$  (**30**), may also be typically incorporated into the optional instruction values  $VV_{n1} \dots VV_{nv}$  (**202**).

Timeout per Search Engine **314**, which is substantially the maximum time for the server **PS** (**18**) and/or the particular client  $C_n$  (**16**) making the requests  $Q_{n1} \dots Q_{nm}$  (**29**) to wait for each of the responses  $R_{n1} \dots R_{nm}$  (**32**) therefrom certain ones of the servers  $S_1 \dots S_z$  (**20**), in accordance with the designation scheme which designates the certain ones of the servers  $S_1 \dots S_z$  (**20**) to be communicated with corresponding to the requests  $Q_{n1} \dots Q_{nm}$  (**29**) as the corresponding server designations  $S_{n1} \dots S_{nm}$  (**30**), may also be typically incorporated into the optional instruction values  $VV_{n1} \dots VV_{nv}$  (**202**).

URL's per Search Engine **315**, which is the number of links and/or descriptions to be returned to the user interface  $I_n$  (**14**) from each of the responses  $R_{n1} \dots R_{nm}$  (**32**), may also be typically incorporated into the optional instruction values  $VV_{n1} \dots VV_{nv}$  (**202**). Search Engine Results **316** and URL Details **317**, each of which designate different presentation and/or display schemes to be presented at the user interface  $I_n$  (**14**), may also be typically incorporated into the optional instruction values  $VV_{n1} \dots VV_{nv}$  (**202**).

In those instance in which, for example, the service and/or information entry request form **IE<sub>n</sub> (38)** at the user interface **I<sub>n</sub> (14)** has only one entry field for one of the requests **Q<sub>n1</sub> (29)**, as in FIGS. 6, 8, and 10, and the optional instruction values **VV<sub>11</sub>...VV<sub>nv</sub> (202)** are not visible, the server **PS (18)** and/or the particular client **C<sub>n</sub> (16)** may then have default values resident therein for the Searches per Group **311**, and/or the Group **312**, and/or the Page **313**, and/or the Timeout per Search Engine **314**, and/or the URL's per Search Engine **315**, and/or the Search Engine Results **316**, and/or the URL Details **317**, and/or other suitable ones of the optional instruction values **VV<sub>11</sub>...VV<sub>nv</sub> (202)**, and/or the server **PS (18)** and/or the particular client **C<sub>n</sub> (16)** may establish the default values, and/or the default values may be incorporated into the optional hidden instruction values **Vv<sub>n1</sub>...Vv<sub>ni</sub> (276)**.

The server **PS (18)** and/or the particular client **C<sub>n</sub> (16)** may make the requests **Q<sub>n1</sub>...Q<sub>nm</sub> (29)** of the servers **S<sub>1</sub>...S<sub>z</sub> (20)**, according to the designation scheme corresponding to the corresponding ones of the server designations **S<sub>n1</sub>...S<sub>nm</sub> (30)**, and the optional instruction values **VV<sub>n1</sub>...VV<sub>nv</sub> (202)**, typically having the Searches per Group **311**, and/or the Group **312**, and/or the Page **313**, and/or the Timeout per Search Engine **314**, and/or the URL's per Search Engine **315**, and/or the Search Engine Results **316**, and/or the URL Details **317**, and/or the default values which may be established or be resident within the server **PS (18)** and/or the particular client **C<sub>n</sub> (16)**, and/or the optional hidden instruction values **Vv<sub>n1</sub>...Vv<sub>ni</sub> (276)**, and/or other information incorporated into the hidden client request elements **HP<sub>n1</sub>...HP<sub>nh</sub> (256)** hidden from the user **U<sub>n</sub> (12)**.

#### E. COMMUNICATING THE SERVICE AND/OR INFORMATION REQUESTS

Now, each of the users  $U_1 \dots U_n$  (12) communicate the corresponding user service and/or information requests  $iq_1 \dots iq_n$  (27) therethrough the corresponding user interfaces  $I_1 \dots I_n$  (14) to the corresponding clients  $C_1 \dots C_n$  (16), which optionally format the corresponding user service and/or information requests  $iq_1 \dots iq_n$  (27) into the corresponding service and/or information requests  $IQ_1 \dots IQ_n$  (28). The clients  $C_1 \dots C_n$  (16) communicate the corresponding service and/or information requests  $IQ_1 \dots IQ_n$  (28) thereto the server  $PS$  (18) and/or use the corresponding user service and/or information requests  $iq_1 \dots iq_n$  (27) internally to formulate the requests  $Q_{11} \dots Q_{nm}$  (29).

#### F. PARSING, PROCESSING, AND/OR FORMATTING THE SERVICE AND/OR INFORMATION REQUESTS

The server  $PS$  (18) and/or the clients  $C_1 \dots C_n$  (16) parse, process, and/or format the service and/or information requests  $IQ_1 \dots IQ_n$  (28) into the requests  $Q_{11} \dots Q_{nm}$  (29), the optional instructions  $VJ_{11} \dots VJ_{nk}$  (52), and information to open connections  $OC_{11} \dots OC_{nm}$  (323). FIG. 86 shows a particular one of the requests  $Q_{nm}$  (29), the optional instructions  $VJ_{n1} \dots VJ_{nk}$  (52), and the information to open connections  $OC_{11} \dots OC_{nm}$  (323), which may be parsed, processed, and/or formatted from a particular one of the service and/or information requests  $IQ_n$  (28). The clients  $C_1 \dots C_n$  (16) may alternatively and/or additionally parse, process, and/or format the user service

and/or information requests  $iq_1 \dots iq_n$  (27) directly into the requests  $Q_{11} \dots Q_{nm}$  (29), and/or the optional instructions  $VJ_{11} \dots VJ_{nk}$  (52) and the information required to open the connections  $OC_{11} \dots OC_{nm}$  (323), as required.

5 Upon receipt of the service and/or information requests  $IQ_1 \dots IQ_n$  (28) at the server **PS** (18), communicated therefrom the clients  $C_1 \dots C_n$  (16), the server **PS** (18) parses, processes, and/or formats each of the corresponding service and/or information requests  $IQ_1 \dots IQ_n$  (28) into the corresponding queries  $QQ_{11} \dots QQ_{nm}$  (53), the corresponding server addresses  $AQ_{11} \dots AQ_{nm}$  (54) to open connections  $OC_{11} \dots OC_{nm}$  (323) with and  
10 make the requests  $Q_{11} \dots Q_{nm}$  (29) thereof the servers  $S_1 \dots S_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $S_1 \dots S_z$  (20) to be communicated with corresponding to the requests  $Q_{11} \dots Q_{nm}$  (29), and/or the optional instructions  $VJ_{11} \dots VJ_{nk}$  (52) to be used by the server **PS** (18) in making the requests  $Q_{11} \dots Q_{nm}$  (29) and/or in processing, formatting, grouping, and organizing the  
15 responses  $R_{11} \dots R_{nm}$  (32) from the ones of the servers  $S_1 \dots S_z$  (20) corresponding to the server designations  $S_{11} \dots S_{nm}$  (30), and/or the additional optional responses  $RA_{11} \dots RA_{nm}$  (40), into the corresponding service and/or information responses  $IR_1 \dots IR_n$  (34), as shown in FIG. 86.

20 Alternatively and/or additionally, upon receipt of the user service and/or information requests  $iq_1 \dots iq_n$  (27) at the corresponding clients  $C_1 \dots C_n$  (16), the corresponding clients  $C_1 \dots C_n$  (16) may parse, process, and/or format each of the user service and/or information requests  $iq_1 \dots iq_n$  (27) into corresponding queries  $QQ_{11} \dots QQ_{nm}$  (53),

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corresponding server addresses  $AQ_{11} \dots AQ_{nm}$  (54) to open connections  $OC_{11} \dots OC_{nm}$  (323) with and make the requests  $Q_{11} \dots Q_{nm}$  (29) thereof the servers  $S_1 \dots S_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $S_1 \dots S_z$  (20) to be communicated with corresponding to the requests  $Q_{11} \dots Q_{nm}$  (29), and/or the optional instructions  $VJ_{11} \dots VJ_{nk}$  (52) to be used by the corresponding clients  $C_1 \dots C_n$  (16) in making the requests  $Q_{11} \dots Q_{nm}$  (29) and/or in processing, formatting, grouping, and organizing the responses  $R_{11} \dots R_{nm}$  (32) from the ones of the servers  $S_1 \dots S_z$  (20) corresponding to the server designations  $S_{11} \dots S_{nm}$  (30), and/or the additional optional responses  $RA_{11} \dots RA_{nm}$  (40), into the corresponding user service and/or information responses  $ir_1 \dots ir_n$  (36).

The server  $PS$  (18) parses, processes, and/or formats each of the service and/or information requests  $IQ_1 \dots IQ_n$  (28) into queries, server addresses to make the queries of, query groups and/or server groups, and instructions to be used by the server  $PS$  (18), typically when the server  $PS$  (18) makes the requests  $Q_{11} \dots Q_{nm}$  (29) of the servers  $S_1 \dots S_z$  (20) corresponding to the server designations  $S_{11} \dots S_{nm}$  (30) and/or the server  $PS$  (18) processes, formats, groups, and organizes the responses  $R_{11} \dots R_{nm}$  (32) from the ones of the servers  $S_1 \dots S_z$  (20) corresponding to the server designations  $S_{11} \dots S_{nm}$  (30) at the server  $PS$  (18). Otherwise, the clients  $C_1 \dots C_n$  (16) may parse, process, and/or format each of the user service and/or information requests  $iq_1 \dots iq_n$  (27) into queries, server addresses to make the queries of, query groups and/or server groups, and instructions, typically when the clients  $C_1 \dots C_n$  (16) make the requests  $Q_{11} \dots Q_{nm}$  (29) of the servers  $S_1 \dots S_z$  (20) corresponding to the server designations

$S_{11}...S_{nm}$  (30) and/or the clients  $C_1...C_n$  (16) process, format, group, and organize the responses  $R_{11}...R_{nm}$  (32) from the ones of the servers  $S_1...S_z$  (20) corresponding to the server designations  $S_{11}...S_{nm}$  (30) at the corresponding clients  $C_1...C_n$  (16).

Choice as to whether the server **PS (18)** and/or the clients  $C_1...C_n$  (16) makes the requests  $Q_{11}...Q_{nm}$  (29) of the servers  $S_1...S_z$  (20) corresponding to the server designations  $S_{11}...S_{nm}$  (30) and/or process, format, group, and organize the responses  $R_{11}...R_{nm}$  (32) are dependent on processing capabilities of the server **PS (18)** and/or the clients  $C_1...C_n$  (16) and other factors.

10 Ones of the requests  $Q_{11}...Q_{nm}$  (29) may require further formatting and/or processing by the server **PS (18)** and/or the corresponding clients  $C_1...C_n$  (16), and/or other ones of the requests  $Q_{11}...Q_{nm}$  (29) may already be formatted in accordance with requirements with respect to communications protocols, the service and/or information requests  $IQ_1...IQ_n$  (28), the servers  $S_1...S_z$  (20), and/or the optional servers

15  $SO_1...SO_p$  (22), and/or the server **PS (18)**, and/or other requirements of the network 24 of the client-server multitasking system 10. The server **PS (18)** and/or the clients  $C_1...C_n$  (16) parse, process, and/or format the requests  $Q_{11}...Q_{nm}$  (29), as required.

#### G. FORMULATING THE REQUESTS

20 Each of the optional instructions  $VJ_{11}...VJ_{nk}$  (52) is typically parsed, and/or processed, and/or formatted, and/or grouped, and/or organized into particular ones of the optional instructions  $VJ_{n1}...VJ_{nk}$  (52) for use by the server **PS (18)** and/or particular ones of

the clients  $C_1 \dots C_n$  (16), a particular one of the clients  $C_1 \dots C_n$  (16) being designated as the client  $C_n$  (16).

Each of the alternate request links  $QL_{n1} \dots QL_{na}$  (203) and the additional request links  
5  $SL_{11} \dots SL_{nw}$  (71) are also typically parsed, and/or processed, and/or formatted, and/or grouped, and/or organized for use by the server  $PS$  (18) and/or particular ones of the clients  $C_1 \dots C_n$  (16), a particular one of the clients  $C_1 \dots C_n$  (16) being designated as the client  $C_n$  (16).

10 The alternate request links  $QL_{n1} \dots QL_{na}$  (203) allow the user  $U_n$  (12) to make the service and/or information request  $IQ_1 \dots IQ_n$  (28) with preconfigured optional default selections already placed therein the service and/or information request  $IQ_1 \dots IQ_n$  (28) for the user  $U_n$  (12). The additional request links  $SL_{n1} \dots SL_{nw}$  (71) allow the user  $U_n$  (12) to make additional optional selections, based upon information and/or services  
15 previously requested by the user  $U_n$  (12).

Typical ones of the optional instructions  $VJ_{n1} \dots VJ_{nk}$  (52) and the additional request links  $SL_{n1} \dots SL_{nw}$  (71) that may be parsed, processed, and/or formatted from the service and/or information request  $IQ_n$  (28) and/or the user service and/or information  
20 request  $iq_n$  (27) are shown in FIG. 90.

The requests  $Q_{11} \dots Q_{nm}$  (29) may be made by the server  $PS$  (18) and/or the corresponding clients  $C_1 \dots C_n$  (16) of the associated corresponding ones of the servers



**S<sub>1</sub>...S<sub>z</sub> (20)**, according to the designation scheme corresponding to the corresponding ones of the server designations **S<sub>11</sub>...S<sub>nm</sub> (30)**, in accordance with the optional instructions **VJ<sub>11</sub>...VJ<sub>nk</sub> (52)** and/or default values for the optional instructions **VJ<sub>11</sub>...VJ<sub>nk</sub> (52)** resident within the server **PS (18)** and/or the corresponding clients

5 **C<sub>1</sub>...C<sub>n</sub> (16)**.

The service and/or information responses **IR<sub>1</sub>...IR<sub>n</sub> (34)** and/or the corresponding user service and/or information responses **ir<sub>1</sub>...ir<sub>n</sub> (36)** may be formulated by the server **PS (18)** and/or the corresponding clients **C<sub>1</sub>...C<sub>n</sub> (16)**, in accordance with the optional

10 instructions **VJ<sub>11</sub>...VJ<sub>nk</sub> (52)** and/or default values for the optional instructions **VJ<sub>11</sub>...VJ<sub>nk</sub> (52)** resident within the server **PS (18)** and/or the corresponding clients **C<sub>1</sub>...C<sub>n</sub> (16)**.

The optional instructions **VJ<sub>n1</sub>...VJ<sub>nk</sub> (52)** and the additional request links

15 **SL<sub>11</sub>...SL<sub>nw</sub> (71)** for a particular one of the service and/or information requests **IQ<sub>n</sub> (28)** may typically have Searches per Group **326**, and/or Group **327**, and/or Page **328A** and/or Page **328B**, and/or Timeout per Search Engine **329**, and/or URL's per Search Engine **330**, and/or Search Engine Results **331A** and/or Search Display **331B**, and/or URL Details **332A** and/or Description and/or List **332B**, as shown in FIG. 90. Default

20 values may additionally and/or alternatively be established or be resident for any and/or all of the optional instructions **VJ<sub>11</sub>...VJ<sub>nk</sub> (52)** within the server **PS (18)** and/or the clients **C<sub>1</sub>...C<sub>n</sub> (16)**.

The Searches per Group **326** are typically considered to be the number of the queries **QQ<sub>n1</sub>...QQ<sub>nm</sub> (53)** to make of the servers **S<sub>1</sub>...S<sub>z</sub> (20)** thereof at the corresponding server addresses **AQ<sub>n1</sub>...AQ<sub>nm</sub> (54)**, in accordance with the designation scheme which designates the certain ones of the servers **S<sub>1</sub>...S<sub>z</sub> (20)** to make the requests **Q<sub>n1</sub>...Q<sub>nm</sub> (29)** thereof as the corresponding ones of the server designations **S<sub>n1</sub>...S<sub>nm</sub> (30)**.

The Group **327** is considered to be the group of the queries **QQ<sub>n1</sub>...QQ<sub>nm</sub> (53)** to make of the servers **S<sub>1</sub>...S<sub>z</sub> (20)** thereof at the corresponding server addresses **AQ<sub>n1</sub>...AQ<sub>nm</sub> (54)**, in accordance with the designation scheme which designates the certain ones of the servers **S<sub>1</sub>...S<sub>z</sub> (20)** to make the requests **Q<sub>n1</sub>...Q<sub>nm</sub> (29)** thereof as the corresponding ones of the server designations **S<sub>n1</sub>...S<sub>nm</sub> (30)**.

The Page **328A** and the Page **328B** have certain service and/or information location information, which may be incorporated into the requests **Q<sub>n1</sub>...Q<sub>nm</sub> (29)** to be made of the associated corresponding ones of the servers **S<sub>1</sub>...S<sub>z</sub> (20)** thereof, at the corresponding server addresses **AQ<sub>n1</sub>...AQ<sub>nm</sub> (54)**, in accordance with the designation scheme corresponding to the corresponding ones of the server designations **S<sub>n1</sub>...S<sub>nm</sub> (30)**.

The Timeout per Search Engine **329** is considered to be substantially the maximum time for the server **PS (18)** and/or the particular client **C<sub>n</sub> (16)** making the requests **Q<sub>n1</sub>...Q<sub>nm</sub> (29)** to wait for each of the responses **R<sub>n1</sub>...R<sub>nm</sub> (32)** therefrom certain ones of the servers **S<sub>1</sub>...S<sub>z</sub> (20)**, in accordance with the designation scheme which

designates the certain ones of the servers  $S_1 \dots S_z$  (20) to be communicated with corresponding to the requests  $Q_{n1} \dots Q_{nm}$  (29) as the corresponding server designations  $S_{n1} \dots S_{nm}$  (30).

- 5 The URL's per Search Engine 330, is considered to be the number of links, and/or descriptions, and/or prices/values, and/or images to be returned to the user interface  $I_n$  (14) from each of the responses  $R_{n1} \dots R_{nm}$  (32).

10 The Search Engine Results 331A and the Search Display 331B each designate presentation and/or display schemes to be presented at the user interface  $I_n$  (14). The URL Details 332A and the Description and/or List 332B each also designate presentation and/or display schemes to be presented at the user interface  $I_n$  (14).

15 FIG. 127 is a schematic representation of certain typical optional instructions  $VJ_{nm1} \dots VJ_{nk}$  (52) and/or certain additional request links  $SL_{n1} \dots SL_{nw}$  (71), referred to as the Search Engine Results 331A, which are shown to be Interleave 331A-1, Separate 331A-2, Combine  $\$[a-z]$  331A-3, Combine  $\$[z-a]$  331A-4, Separate  $\$[a-z]$  331A-5, Separate  $\$[z-a]$  331A-6, which are instructions for parsing, processing, sorting, and/or formatting the service and/or information response  $IR_n$  (34).

20 FIG. 128 is a schematic representation of other certain typical optional instructions  $VJ_{nm1} \dots VJ_{nk}$  (52) and/or other certain additional request links  $SL_{n1} \dots SL_{nw}$  (71), referred to as the URL Details 332A, which are other instructions for parsing,

processing, sorting, and/or formatting the service and/or information response **IR<sub>n</sub> (34)** in Summary **332A-1** or List **332A-2** formats.

FIG. 129 depicts certain typical additional request links **SL<sub>n1</sub>...SL<sub>nw</sub> (71)**, and also  
5 shows the Search Display **331B**, which are shown to be Interleave **331B-1**, Separate  
**331B-2**, Combine **331B-3**, Separate **331B-4**, Separate **331B-5**,  
Separate **331B-6**, which are instructions for parsing, processing, sorting, and/or  
formatting the service and/or information response **IR<sub>n</sub> (34)** and the Description and/or  
List **332B**, which are other instructions for parsing, processing, sorting, and/or  
10 formatting the service and/or information response **IR<sub>n</sub> (34)** in Summary or List  
formats.

The optional instructions **VJ<sub>n1</sub>...VJ<sub>nk</sub> (52)** may also typically have Next Group **333**  
and Previous Group **334**, which are considered to be the next group and the previous  
15 group, respectively, to make the queries **QQ<sub>n1</sub>...QQ<sub>nm</sub> (53)** thereof at the next and  
previous ones of the corresponding groups of the queries **QQ<sub>n1</sub>...QQ<sub>nm</sub> (53)** to make  
of the servers **S<sub>1</sub>...S<sub>z</sub> (20)** thereof at the corresponding server addresses **AQ<sub>n1</sub>...AQ<sub>nm</sub>**  
**(54)**, in accordance with the designation scheme which designates the certain ones of  
the servers **S<sub>1</sub>...S<sub>z</sub> (20)** to make the requests **Q<sub>n1</sub>...Q<sub>nm</sub> (29)** thereof as the  
20 corresponding ones of the server designations **S<sub>n1</sub>...S<sub>nm</sub> (30)**. Information about  
Current Group **337** having the queries **QQ<sub>n1</sub>...QQ<sub>nm</sub> (53)** and the server addresses  
**AQ<sub>n1</sub>...AQ<sub>nm</sub> (54)** is also shown. Current Page Number **338** is also indicated.

The optional instructions  $VJ_{n1} \dots VJ_{nk}$  (52) for a particular one of the service and/or information requests  $IQ_n$  (28) may also typically have Next Page 335 and Previous Page 336, each of which has certain different service and/or information location information, which may be incorporated into the requests  $Q_{n1} \dots Q_{nm}$  (29) to be made of the associated corresponding ones of the servers  $S_1 \dots S_z$  (20), in accordance with the designation scheme corresponding to the corresponding ones of the server designations  $S_{n1} \dots S_{nm}$  (30).

#### H. DETERMINING QUERIES AND SERVERS TO MAKE THE REQUESTS THEREOF

The server  $PS$  (18) and/or the clients  $C_1 \dots C_n$  (16) evaluate the optional instructions  $VJ_{11} \dots VJ_{nk}$  (52), determine the queries  $QQ_{11} \dots QQ_{nm}$  (53) and the servers  $S_1 \dots S_z$  (20) to make the requests  $Q_{11} \dots Q_{nm}$  (29) thereof at the corresponding server addresses  $AQ_{11} \dots AQ_{nm}$  (54), in accordance with the designation scheme which designates the certain ones of the servers  $S_1 \dots S_z$  (20) to be communicated with as the server designations  $S_{11} \dots S_{nm}$  (30), corresponding to the requests  $Q_{11} \dots Q_{nm}$  (29), and group the queries  $QQ_{11} \dots QQ_{nm}$  (53) and the corresponding server addresses  $AQ_{11} \dots AQ_{nm}$  (54) associated therewith.

FIG. 90 shows typical ones of the queries  $QQ_{n1} \dots QQ_{nm}$  (53), the corresponding server addresses  $AQ_{n1} \dots AQ_{nm}$  (54), and the optional instructions  $VJ_{n1} \dots VJ_{nk}$  (52) that may be parsed, processed, and/or formatted from the service and/or information request  $IQ_n$  (28) and/or the user service and/or information request  $iq_n$  (27).

The queries  $QQ_{11} \dots QQ_{nm}$  (53) and the servers  $S_1 \dots S_z$  (20) to make the requests  $Q_{11} \dots Q_{nm}$  (29) thereof are typically based upon the values designated therein and parsed from the queries  $QQ_{11} \dots QQ_{nm}$  (53) and the values designated therein and  
5 parsed from the corresponding server addresses  $AQ_{11} \dots AQ_{nm}$  (54), in accordance with the designation scheme which designates the certain ones of the servers  $S_1 \dots S_z$  (20) to be communicated with as the server designations  $S_{11} \dots S_{nm}$  (30), corresponding to the requests  $Q_{11} \dots Q_{nm}$  (29), and the Searches per Group 326, the Group 327, the Page 328A and/or the Page 328B within the optional instructions  $VJ_{11} \dots VJ_{nk}$  (52).

10 The server PS (18) and/or the clients  $C_1 \dots C_n$  (16) evaluate the values therein the Group 327, the Searches per Group 326, the queries  $QQ_{11} \dots QQ_{nm}$  (53), the corresponding server addresses  $AQ_{11} \dots AQ_{nm}$  (54), and determine the servers  $S_1 \dots S_z$  (20) corresponding to the corresponding server addresses  $AQ_{11} \dots AQ_{nm}$  (54) within the  
15 Group 327, in accordance with the designation scheme which designates the certain ones of the servers  $S_1 \dots S_z$  (20) to be communicated with as the server designations  $S_{11} \dots S_{nm}$  (30) to make the requests  $Q_{11} \dots Q_{nm}$  (29) thereof, and the Page 328A and/or the Page 328B.

20 The Group 327 and the Searches per Group 326 are used to determine which of the servers  $S_1 \dots S_z$  (20) to make the requests  $Q_{11} \dots Q_{nm}$  (29) thereof.

The server **PS (18)** and/or the clients **C<sub>1</sub>...C<sub>n</sub> (16)** determine the size of the Group **327** from the Searches per Group **326** and the Group **327**, and the servers **S<sub>1</sub>...S<sub>z</sub> (20)** associated with the corresponding server addresses **AQ<sub>11</sub>...AQ<sub>nm</sub> (54)** within the Group **327**, in accordance with the designation scheme which designates the certain ones of the servers **S<sub>1</sub>...S<sub>z</sub> (20)** to be communicated with as the server designations **S<sub>11</sub>...S<sub>nm</sub> (30)**.

The Searches per Group **326** and the Group **327** are used to formulate the current request groups **QA<sub>1c</sub>...QA<sub>nc</sub> (50)** having the corresponding queries **QQ<sub>11</sub>...QQ<sub>nm</sub> (53)** and the corresponding server addresses **AQ<sub>11</sub>...AQ<sub>nm</sub> (54)** to open connections with and make the requests **Q<sub>11</sub>...Q<sub>nm</sub> (29)** thereof the servers **S<sub>1</sub>...S<sub>z</sub> (20)**, in accordance with the designation scheme which designates the certain ones of the servers **S<sub>1</sub>...S<sub>z</sub> (20)** to be communicated with corresponding to the requests **Q<sub>11</sub>...Q<sub>nm</sub> (29)** thereof as the server designations **S<sub>11</sub>...S<sub>nm</sub> (30)**, corresponding to the requests **Q<sub>11</sub>...Q<sub>nm</sub> (29)**, for corresponding ones of the service and/or information requests **IQ<sub>1</sub>...IQ<sub>n</sub> (28)** and/or the user service and/or information requests **iq<sub>1</sub>...iq<sub>n</sub> (27)**.

The queries **QQ<sub>11</sub>...QQ<sub>nm</sub> (53)**, the server addresses **AQ<sub>11</sub>...AQ<sub>nm</sub> (54)**, and the Page **328A** and/or the Page **328B** provide the location of information and/or services to the server **PS (18)** and/or the clients **C<sub>1</sub>...C<sub>n</sub> (16)** within the Group **327**, in accordance with the Searches per Group **326**, to make the requests **Q<sub>11</sub>...Q<sub>nm</sub> (29)** thereof, in accordance with the designation scheme which designates the ones of the servers

$S_1...S_z$  (20) to make the requests  $Q_{11}...Q_{nm}$  (29) thereof as the server designations  $S_{11}...S_{nm}$  (30), corresponding to the requests  $Q_{11}...Q_{nm}$  (29).

The URL's per Search Engine 330 determine whether the server PS (18) and/or the clients  $C_1...C_n$  (16) communicate additional ones of the requests  $Q_{11}...Q_{nm}$  (29) of the servers  $S_1...S_z$  (20), depending upon the number of the links, and/or descriptions, and/or prices/values, and/or images requested by ones of the user  $U_1...U_n$  (12) to be returned to the user interfaces  $I_1...I_n$  (14), and the number of links, and/or descriptions, and/or prices/values, and/or images available within each of the corresponding ones of the responses  $R_{11}...R_{nm}$  (32). If insufficient ones of the links, and/or descriptions, and/or prices/values, and/or images are not available within the responses  $R_{11}...R_{nm}$  (32) to satisfy delivery of the number of the URL's per Search Engine 330 requested by certain ones the users  $U_1...U_n$  (12), the server PS (18) and/or the clients  $C_1...C_n$  (16) may yet make additional ones of the requests  $Q_{11}...Q_{nm}$  (29) of the servers  $S_1...S_z$  (20), in order deliver the number of the links, and/or descriptions, and/or prices/values, and/or images requested in the number of the URL's per Search Engine 330 to the user interfaces  $I_1...I_n$  (14) requested by certain ones of the user  $U_1...U_n$  (12).

If the optional instructions do not indicate which ones of the servers  $S_1...S_z$  (20) to make the requests  $Q_{11}...Q_{nm}$  (29) thereof, in accordance with the designation scheme which designates the certain ones of the servers  $S_1...S_z$  (20) to be communicated with as the server designations  $S_{11}...S_{nm}$  (30), corresponding to the requests  $Q_{11}...Q_{nm}$



(29), default values may be used. The default values may be resident within the server PS (18) and/or the clients C<sub>1</sub>...C<sub>n</sub> (16).

If all and/or a portion of the optional instructions VJ<sub>11</sub>...VJ<sub>nk</sub> (52) are absent and/or are not communicated thereto the server PS (18) and/or the clients C<sub>1</sub>...C<sub>n</sub> (16), default values may be used. The default values may be resident within the server PS (18) and/or the clients C<sub>1</sub>...C<sub>n</sub> (16).

#### I. GROUPING THE QUERIES AND SORTING/GROUPING CRITERIA

10 Upon receipt of the service and/or information requests IQ<sub>1</sub>...IQ<sub>n</sub> (28) at the server PS (18), communicated therefrom the corresponding clients C<sub>1</sub>...C<sub>n</sub> (16), the server PS (18) parses, processes, and/or formats each of the service and/or information requests IQ<sub>1</sub>...IQ<sub>n</sub> (28) into the corresponding current request groups QA<sub>1c</sub>...QA<sub>nc</sub> (50) having the corresponding queries QQ<sub>11</sub>...QQ<sub>nm</sub> (53) and the corresponding server addresses AQ<sub>11</sub>...AQ<sub>nm</sub> (54) to open connections with and make the requests Q<sub>11</sub>...Q<sub>nm</sub> (29) thereof the servers S<sub>1</sub>...S<sub>z</sub> (20), in accordance with the designation scheme which designates the certain ones of the servers S<sub>1</sub>...S<sub>z</sub> (20) to be communicated with corresponding to the requests Q<sub>11</sub>...Q<sub>nm</sub> (29) as the corresponding server designations S<sub>11</sub>...S<sub>nm</sub> (30), shown for a particular one of the service and/or information requests IQ<sub>n</sub> (28) in FIG. 59. The process 104 of deriving the service and/or information response IR<sub>n</sub> (34) for the grouping and/or sorting criteria of FIG. 59 is shown in FIG. 70-1A.

The server **PS (18)** also parses, processes, and/or formats each of the service and/or information requests **IQ<sub>1</sub>...IQ<sub>n</sub> (28)** into the corresponding request groups **QA<sub>11</sub>...QA<sub>nz</sub> (51)** having the corresponding other queries **QQ<sub>1a</sub>...QQ<sub>nz</sub> (55)** and the corresponding other server addresses **AQ<sub>1a</sub>...AQ<sub>nz</sub> (56)**, and the corresponding optional instructions **VJ<sub>11</sub>...VJ<sub>nk</sub> (52)**, also shown for a particular one of the service and/or information requests **IQ<sub>n</sub> (28)** in FIG. 59.

Certain ones of the clients **C<sub>1</sub>...C<sub>n</sub> (16)** may alternatively and/or additionally make the requests **Q<sub>11</sub>...Q<sub>nm</sub> (29)** thereof the servers **S<sub>1</sub>...S<sub>z</sub> (20)**, in accordance with the designation scheme which designates the certain ones of the servers **S<sub>1</sub>...S<sub>z</sub> (20)** to be communicated with corresponding to the requests **Q<sub>11</sub>...Q<sub>nm</sub> (29)** as the corresponding server designations **S<sub>11</sub>...S<sub>nm</sub> (30)**, and formulate the corresponding user service and/or information response **ir<sub>1</sub>...ir<sub>n</sub> (36)**, as previously described, as shown in FIG.

63. The process **104** of deriving the user service and/or information response **ir<sub>n</sub> (36)** for the grouping and/or sorting criteria of FIG. 59 is shown in FIG. 70-1A.

Upon receipt of the user service and/or information requests **iq<sub>1</sub>...iq<sub>n</sub> (27)** at the corresponding clients **C<sub>1</sub>...C<sub>n</sub> (16)**, certain ones of the corresponding clients **C<sub>1</sub>...C<sub>n</sub> (16)** may parse, process, and/or format the corresponding user service and/or information requests **iq<sub>1</sub>...iq<sub>n</sub> (27)** into the corresponding current request groups **QA<sub>1c</sub>...QA<sub>nc</sub> (50)** having the corresponding queries **QQ<sub>11</sub>...QQ<sub>nm</sub> (53)** and the corresponding server addresses **AQ<sub>11</sub>...AQ<sub>nm</sub> (54)** to open connections with and make

the requests  $Q_{11} \dots Q_{nm}$  (29) thereof the servers  $S_1 \dots S_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $S_1 \dots S_z$  (20) to be communicated with corresponding to the requests  $Q_{11} \dots Q_{nm}$  (29), shown for a particular one of the user service and/or information requests  $iq_n$  (27) in FIG. 63. The  
5 corresponding clients  $C_1 \dots C_n$  (16) may also parse, process, and/or format the corresponding user service and/or information response  $ir_1 \dots ir_n$  (36) into the corresponding request groups  $QA_{11} \dots QA_{nz}$  (51) having the corresponding other queries  $QQ_{1a} \dots QQ_{nz}$  (55) and the corresponding other server addresses  $AQ_{1a} \dots AQ_{nz}$  (56), and the corresponding optional instructions  $VJ_{11} \dots VJ_{nk}$  (52), also shown for a  
10 particular one of the user service and/or information requests  $iq_n$  (27) in FIG. 63.

The server  $PS$  (18) makes the requests  $Q_{11} \dots Q_{nm}$  (29) thereof the servers  $S_1 \dots S_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $S_1 \dots S_z$  (20) to be communicated with corresponding to the requests  
15  $Q_{11} \dots Q_{nm}$  (29) as the corresponding server designations  $S_{11} \dots S_{nm}$  (30), as shown in FIG. 59, and certain ones of the clients  $C_1 \dots C_n$  (16) may additionally and/or alternatively make the requests  $Q_{11} \dots Q_{nm}$  (29) thereof the servers  $S_1 \dots S_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $S_1 \dots S_z$  (20) to be communicated with corresponding to the requests  $Q_{11} \dots Q_{nm}$   
20 (29) as the corresponding server designations  $S_{11} \dots S_{nm}$  (30), as shown in FIG. 63.

The Searches per Group 326 and the Group 327 are used to formulate the current request group  $QA_{nc}$  (50) having the corresponding queries  $QQ_{n1} \dots QQ_{nm}$  (53) and the

corresponding server addresses  $AQ_{n1} \dots AQ_{nm}$  (54) to open connections with and make the requests  $Q_{n1} \dots Q_{nm}$  (29) thereof the servers  $S_1 \dots S_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $S_1 \dots S_z$  (20) to be communicated with corresponding to the requests  $Q_{n1} \dots Q_{nm}$  (29) thereof as the server designations  $S_{11} \dots S_{nm}$  (30), corresponding to the requests  $Q_{11} \dots Q_{nm}$  (29), for the service and/or information request  $IQ_n$  (28) and/or the user service and/or information request  $iq_n$  (27).

Information from the current request group  $QA_{nc}$  (50) having the corresponding queries  $QQ_{n1} \dots QQ_{nm}$  (53) and the corresponding server addresses  $AQ_{n1} \dots AQ_{nm}$  (54) is formulated into the corresponding request pointer/address group  $QZ_n$  (60) having the pointers/addresses  $PG_{n1} \dots PG_{nz}$  (61) associated therewith, as shown in FIGS. 59 and 63.

Each of the pointers/addresses  $PG_{n1} \dots PG_{nz}$  (61) are directed to point/address the corresponding addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62) associated therewith, which aid in obtaining services and/or information therefrom the certain ones of the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) to be incorporated therein into the query information groups  $GI_{n1} \dots GI_{nz}$  (63).

Ones of the addressable query information groups  $GI_{n1} \dots GI_{nz}$  (63) may be associated therewith corresponding ones of the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62).

Each of the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62) associated with the service and/or information request  $IQ_n$  has the pointers/addresses

$PP_{n11} \dots PP_{nmr}$  (64) directed to address/point services and/or information therein the  
5 addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57), based upon the grouping and/or sorting criteria.

Information and/or services therein the addressable response information groups  
10  $RG_{n1} \dots RG_{nm}$  (57) is addressed therewith the pointers/addresses  $PP_{n11} \dots PP_{nmr}$  (64) therefrom the query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62), and information and/or services therefrom the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) is incorporated thereinto the addressable query information groups  $GI_{n1} \dots GI_{nz}$  (63) corresponding to the pointers/addresses  $PP_{n11} \dots PP_{nmr}$  (64), which are formulated by  
15 the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62), in accordance with the grouping and/or sorting criteria.

FIGS. 59 and 63 show the request pointer/address group  $QZ_n$  (60), the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62), the pointers/addresses  $PP_{n11} \dots PP_{nmr}$   
20 (64), associated ones of the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57), and the query information group  $GI_{nz}$  (63) associated therewith the query pointer/address group  $QG_{nz}$  (62). FIGS. 59 and 63 show the  $r$ th pointers/addresses  $PP_{n1r} \dots PP_{nmr}$  (64), which point to the  $r$ th optional addressable pointer/address indices

$IN_{nmr} \dots IN_{nmr}$  (81) of the corresponding  $r$ th individual information groups  
 $LG_{n1r} \dots LG_{nmr}$  (80) of the addressable response information groups  $RG_{n1} \dots RG_{nm}$   
(57) associated therewith the query pointer/address group  $QG_{nz}$  (62) and the associated  
query information group  $GI_{nz}$  (63).

5

FIG. 91 shows the request pointer/address group  $QZ_n$  (60), a particular one of the  
addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62), designated as the query  
pointer/address group  $QG_{nz}$  (62), the pointers/addresses  $PP_{n11} \dots PP_{nmr}$  (64),  
associated ones of the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57),  
and the query information group  $GI_{nz}$  (63) associated therewith the query  
pointer/address group  $QG_{nz}$  (62).

10

The addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62) each have  
corresponding ones of query information groups  $GI_{n1} \dots GI_{nz}$  (63) associated therewith.

15

Each of the query information groups  $GI_{n1} \dots GI_{nz}$  (63) have information and/or  
services therein, which are derived therefrom information and/or services obtained from  
the certain ones of the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57),  
which are addressed to provide such information therewith the aid of the corresponding  
pointers/addresses  $PP_{n11} \dots PP_{nmr}$  (64). Each of the pointers/addresses  $PP_{n11} \dots PP_{nmr}$   
(64) are directed to point/address information and/or services therein the corresponding  
20 response information groups  $RG_{n1} \dots RG_{nm}$  (57) associated therewith, which the  
information and/or services incorporated into the ones of the query information groups

$G_{n1}...G_{nz}$  (63) associated therewith the corresponding addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62) is obtained therefrom.

The addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62) may be used to aid in  
5 formulating the query information groups  $G_{n1}...G_{nz}$  (63), having information obtained the addressable response information groups  $RG_{nm}$  (57), resulting from certain ones of the queries  $QQ_{n1}...QQ_{nm}$  (53) grouped one with the other and/or the associated ones of the corresponding server addresses  $AQ_{n1}...AQ_{nm}$  (54). The query information groups  $G_{n1}...G_{nz}$  (63) may be presented thereto the user  $U_n$  (12)  
10 therethrough the user interface  $I_n$  (14). The addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62) may be derived therefrom query criteria in the optional instructions  $VJ_{11}...VJ_{nk}$  (52) and/or using default criteria resident within the server  $PS$  (18) and/or the client  $C_n$  (16).

15 Query grouping criteria giving the user  $U_n$  (12) the ability to formulate the addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62) may be incorporated therein the optional instructions  $VJ_{11}...VJ_{nk}$  (52), which may be entered therein the user interface  $I_n$  (14) therethrough the user input  $UI_n$  (25) by the user  $U_n$  (12). Typically, however, the queries  $QQ_{n1}...QQ_{nm}$  (53) having the same and/or substantially the same  
20 values are grouped one with the other therein individual ones of the addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62). Default criteria may be resident within the server  $PS$  (18) and/or the client  $C_n$  (16).

The size of the request pointer/address group  $QZ_n$  (60) and which particular ones of the queries  $QQ_{n1}...QQ_{nm}$  (53) and the corresponding ones of the server addresses  $AQ_{n1}...AQ_{nm}$  (54) to use therein the requests  $Q_{n1}...Q_{nm}$  (29), and thus construction and/or formulation of the addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62) to incorporate therein the particular request pointer/address group  $QZ_n$  (60), and, thus, delivery of information therein the query information groups  $GI_{n1}...GI_{nz}$  (63) is determined by the current request groups  $QA_{1c}...QA_{nc}$  (50), which may be determined from the Group 327 and the Searches per Group 326, the queries  $QQ_{n1}...QQ_{nm}$  (53) and the corresponding ones of the server addresses  $AQ_{n1}...AQ_{nm}$  (54) therein.

Certain ones of the queries  $QQ_{n1}...QQ_{nm}$  (53) may be grouped one with the other in the addressable query pointer/address groups  $QG_{n1}...QG_{nz}$  (62), which have the certain ones of the queries  $QQ_{n1}...QQ_{nm}$  (53) and the corresponding ones of the server addresses  $AQ_{n1}...AQ_{nm}$  (54) associated therewith, and the corresponding pointers/addresses  $PP_{n11}...PP_{nmr}$  (64) associated therewith the certain ones of the queries  $QQ_{n1}...QQ_{nm}$  (53), the corresponding ones of the server addresses  $AQ_{n1}...AQ_{nm}$  (54), and certain ones of response information groups  $RG_{n1}...RG_{nm}$  (57).

Typical sorting and/or grouping criteria, for example, may group certain ones of the queries  $QQ_{n1}...QQ_{nm}$  (53) having the same and/or substantially the same values grouped therein a particular one of the query information groups  $GI_{nz}...GI_{nz}$  (63),



designated as the query information group  $GI_{nz}$  (63), as shown in FIG. 92 and in certain ones of FIGS. 27-52.

Alternatively and/or additionally, other typical sorting and/or grouping criteria, for example, may group certain ones of the server addresses  $AQ_{n1}...AQ_{nm}$  (54), having the same and/or substantially the same values grouped therein a particular one of the query information groups  $GI_{nz}...GI_{nz}$  (63), designated as the query information group  $GI_{nz}$  (63), as shown in FIG. 93.

10 FIGS. 91-93 show the rth pointers/addresses  $PP_{ner}$  (64),  $PP_{nrr}$  (64), and  $PP_{nwr}$  (64), which point to the rth optional addressable pointer/address indices  $IN_{ner}$  (81),  $IN_{nrr}$  (81), and  $IN_{nwr}$  (81) of the corresponding rth individual information groups  $LG_{ner}$  (80),  $LG_{nrr}$  (80), and  $LG_{nwr}$  (80) of the addressable response information groups  $RG_{ne}$  (57),  $RG_{nr}$  (57), and  $RG_{nw}$  (57) associated therewith the query pointer/address group  $QG_{nz}$  (62) and the associated query information group  $GI_{nz}$  (63).

Alternatively and/or additionally, the user  $U_n$  (12) may select query grouping criteria, which simply provides information to the user interface  $I_n$  (14), separately with respect to the individual server addresses  $AQ_{n1}...AQ_{nm}$  (54), as shown in FIGS. 60 and 64 and in certain ones of FIGS. 27-52. For example, the query information groups  $GI_{n1}...GI_{nz}$  (63), may alternatively and/or additionally be correspondingly associated with the server address  $AQ_{n1}...AQ_{nm}$  (54), and, thus, may be correspondingly associated with the addressable response information groups  $RG_{n1}...RG_{nm}$  (57). The query

FIG. 70-1B

information group **GI<sub>n1</sub> (63)** may, thus, be associated therewith the server address **AQ<sub>n1</sub> (54)**, the addressable response information group **RG<sub>n1</sub> (57)**, and the query information group **GI<sub>n1</sub> (63)**; the query information group **GI<sub>n2</sub> (63)** may, thus, be associated therewith the server address **AQ<sub>n2</sub> (54)**, the addressable response information group **RG<sub>n2</sub> (57)**, and the query information group **GI<sub>n2</sub> (63)**, and so on; and the query information group **GI<sub>nz</sub> (63)** may, thus, be associated therewith the server address **AQ<sub>nz</sub> (54)**, the addressable response information group **RG<sub>nz</sub> (57)**, and the query information group **GI<sub>nz</sub> (63)**, as shown in FIGS. 60 and 64. The process **104** of deriving the service and/or information response **IR<sub>n</sub> (34)** and/or the user service and/or information response **ir<sub>n</sub> (36)** for the grouping and/or sorting criteria of FIGS. 60 and 64 is shown in FIG. 70-1B.

The pointing/addressing scheme of FIGS. 60 and 64 is, of course, a much simpler pointing/addressing scheme than the pointing/addressing scheme of FIGS. 59 and 63, and does not require incorporating the addressable query pointer/address groups **QG<sub>n1</sub>...QG<sub>nz</sub> (62)** therein to the request pointer/address group **QZ<sub>n</sub> (60)**. Each of the pointers/addresses **PF<sub>n11</sub>...PF<sub>nmr</sub> (69)**, of FIGS. 60 and 64, may then be directed to point/address the corresponding response information groups **RG<sub>n1</sub>...RG<sub>nm</sub> (57)** directly therefrom the request pointer/address group **QY<sub>ns</sub> (68)**, to obtain information therefrom the corresponding response information groups **RG<sub>n1</sub>...RG<sub>nm</sub> (57)** and incorporation therein to corresponding ones of the corresponding query information groups **GI<sub>n1</sub>...GI<sub>nz</sub> (63)**, as shown in FIGS. 60 and 64. In this case, the addressable query pointer/address groups **QG<sub>n1</sub>...QG<sub>nz</sub> (62)** may be bypassed and/or eliminated

completely, thus simplifying the process. Of course, then, in this case, the resulting sorting and grouping is not as sophisticated, and allows for such simplification.

The above sorting criteria addressing schemes are meant only as typical examples of  
5 sorting criteria addressing schemes that may be used. Yet other sorting criteria addressing schemes and/or combinations thereof may be used.

FIG. 94 shows typical ones of the addressable query pointer/address groups  
**QG<sub>n1</sub>...QG<sub>nz</sub> (62)** having the typical ones of the queries **QQ<sub>n1</sub>...QQ<sub>nm</sub> (53)**, the  
10 typical ones of the server addresses **AQ<sub>n1</sub>...AQ<sub>nm</sub> (54)**, and the corresponding ones of typical ones of the pointers/addresses **PP<sub>n11</sub>...PP<sub>nmr</sub> (64)** having the same ones of the queries **QQ<sub>n1</sub>...QQ<sub>nm</sub> (53)** grouped one with the other therein individual ones of the addressable query pointer/address groups **QG<sub>n1</sub>...QG<sub>nz</sub> (62)**.

15 More particularly, FIG. 94 shows the query pointer/address group **QG<sub>n1</sub> (62)**, the query pointer/address group **QG<sub>n2</sub> (62)**, and the query pointer/address group **QG<sub>n3</sub> (62)**. The query pointer/address group **QG<sub>n1</sub> (62)** of FIG. 94 has the same ones of the queries **QQ<sub>n1</sub> (53)**, **QQ<sub>n2</sub> (53)**, **QQ<sub>n3</sub> (53)**, and **QQ<sub>n9</sub> (53)**, the ones of the server addresses **AQ<sub>n1</sub> (54)**, **AQ<sub>n2</sub> (54)**, **AQ<sub>n3</sub> (54)**, and **AQ<sub>n9</sub> (54)**, and the ones of the  
20 pointers/addresses **PP<sub>n1r</sub> (64)**, **PP<sub>n2r</sub> (64)**, **PP<sub>n3r</sub> (64)**, and **PP<sub>n9r</sub> (64)** associated therewith. The query pointer/address group **QG<sub>n2</sub> (62)** of FIG. 94 has the same ones of the queries **QQ<sub>n4</sub> (53)** and **QQ<sub>n7</sub> (53)**, the ones of the server addresses **AQ<sub>n4</sub> (54)** and **AQ<sub>n7</sub> (54)** the ones of the pointer/addresses **PP<sub>n4r</sub> (64)** and **PP<sub>n7r</sub> (64)** associated

therewith. The query pointer/address group  $QG_{n3}$  (62) of FIG. 94 has the same ones of the query values  $QQ_{n5}$  (53),  $QQ_{n6}$  (53), and  $QQ_{n8}$  (53), the ones of the server addresses  $AQ_{n5}$  (54),  $AQ_{n6}$  (54), and  $AQ_{n8}$  (54) and the ones of the pointers/addresses  $PP_{n5r}$  (64),  $PP_{n6r}$  (64), and  $PP_{n8r}$  (64) associated therewith.

5

The addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62), however, may alternatively and/or additionally be grouped, for example, by the server addresses  $AQ_{n1} \dots AQ_{nm}$  (54) and have the corresponding query values  $QQ_{n1} \dots QQ_{nm}$  (53) associated therewith. Ones of the same and/or substantially the same ones of the server addresses  $AQ_{n1} \dots AQ_{nm}$  (54), for example, having the corresponding queries  $QQ_{n1} \dots QQ_{nm}$  (53) associated therewith may be used as the grouping criteria.

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FIG. 95 shows another schematic representation of the typical ones of the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62) having the typical ones of the queries  $QQ_{n1} \dots QQ_{nm}$  (53), the typical ones of the server addresses  $AQ_{n1} \dots AQ_{nm}$  (54), and the typical the ones of the pointer/addresses  $PP_{n11} \dots PP_{nmr}$  (64) of FIG. 94 associated therewith.

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FIG. 96 is a generic schematic representation of the addressable query pointer/address groups  $QG_{n1} \dots QG_{nz}$  (62) having the queries  $QQ_{n1} \dots QQ_{nm}$  (53), the server addresses  $AQ_{n1} \dots AQ_{nm}$  (54), and the pointers/addresses  $PP_{n11} \dots PP_{nmr}$  (64) associated therewith.

20

Certain information therein the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) may be associated with the corresponding queries  $QQ_{n1} \dots QQ_{nm}$  (53) and/or the corresponding server addresses  $AQ_{n1} \dots AQ_{nm}$  (54) within the current request group  $QA_{nc}$  (50), and may optionally be used by the server  $PS$  (18) and/or the client  $C_n$  (16).

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Certain information therein the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) may also be incorporated therein the optional instructions  $VJ_{n1} \dots VJ_{nk}$  (52).

Such information may be incorporated therein the optional instructions  $VJ_{n1} \dots VJ_{nk}$  (52) may also be additionally and/or alternatively optionally resident within the server

10  $PS$  (18) and/or the client  $C_n$  (16).

#### J. COMMUNICATING THE REQUESTS TO THE SERVERS

The server  $PS$  (18) and/or the clients  $C_1 \dots C_n$  (16) contact and open the connections  $OC_{11} \dots OC_{nm}$  (323) with ones of the servers  $S_1 \dots S_z$  (20), according to the server

15 designations  $S_{11} \dots S_{nm}$  (30) at the corresponding server addresses  $A_{11} \dots A_{nu}$  (265) at corresponding ports  $W_{11} \dots W_{nm}$  (343). The server  $PS$  (18) and/or the clients  $C_1 \dots C_n$

(16) communicate the requests  $Q_{11} \dots Q_{nm}$  (29) of one or more of the same and/or different ones of the servers  $S_1 \dots S_z$  (20), designated within the Group 327 and the Searches per Group 326 to make the requests  $Q_{11} \dots Q_{nc}$  (29) thereof, in accordance

20 with the designation scheme corresponding to the corresponding ones of the server designations  $S_{11} \dots S_{nm}$  (30), corresponding to the requests  $Q_{11} \dots Q_{nm}$  (29). If the

Group **327** is not specified and/or the Searches per Group **326** are not specified by the users  $U_1 \dots U_n$  (**12**), default values may additionally and/or alternatively values be used.

A particular one of the requests  $Q_{11} \dots Q_{nm}$  (**29**), hereinafter designated as the request **5**  $Q_{nm}$  (**29**), corresponding to one request within the requests  $Q_{n1} \dots Q_{nm}$  (**29**) corresponding to the user  $U_n$  (**12**), is shown schematically in FIG. 97.

Information **344** that may be used for formulating a typical particular one of the requests  $Q_{nm}$  (**29**) from the service and/or information request  $IQ_n$  (**28**), and parsing, 10 processing, and/or formatting the optional instructions  $VJ_{n1} \dots VJ_{nk}$  (**52**), and opening the connection  $OC_{nm}$  (**323**) is shown in FIGS. 86-89.

Now, in more detail, the request  $Q_{nm}$  (**29**) may have a corresponding request line  $L_{nm}$  (**345**), corresponding optional request header fields  $JH_{n1} \dots JH_{ns}$  (**346**), and a 15 corresponding optional entity body  $EH_{nm}$  (**347**). The request line  $L_{nm}$  (**345**) may have a corresponding method  $M_{nm}$  (**348**), a corresponding target resource  $P_{nm}$  (**349**), which may have information associated with the corresponding query  $QQ_{nm}$  (**53**), and corresponding protocol  $B_{nm}$  (**350**).

20 The user  $U_n$  (**12**), the server  $PS$  (**18**) and/or the client  $C_n$  (**16**) may optionally specify the port  $W_{nm}$  (**343**) to communicate the request  $Q_{nm}$  (**29**) therethrough, and/or the method  $M_{nm}$  (**348**), and/or the protocol  $B_{nm}$  (**350**). The port  $W_{nm}$  (**343**), and/or the method  $M_{nm}$  (**348**), and/or the protocol  $B_{nm}$  (**350**) may optionally be resident within

the server **PS (18)** and/or the client **C<sub>n</sub> (16)**. Default values may also be used for the port **W<sub>nm</sub> (343)** and/or the protocol **B<sub>nm</sub> (350)**.

Typically, information within or from any and/or all or a portion of the queries **QQ<sub>nm</sub> (53)** may be incorporated into the corresponding ones of the target resources **P<sub>11</sub>...P<sub>nm</sub> (349)** and/or the corresponding ones of the optional entity bodies **EH<sub>11</sub>...EH<sub>nm</sub> (347)**, and may in certain instances depend upon the method **M<sub>11</sub>...M<sub>nm</sub> (348)**.

However, information that may be used for opening the connections **OC<sub>11</sub>...OC<sub>nm</sub> (323)** and formulating the requests **Q<sub>11</sub>...Q<sub>nm</sub> (29)** from the service and/or information requests **IQ<sub>1</sub>...IQ<sub>n</sub> (28)** may be derived from any and/or all or a portion of the user client requests **QC<sub>11</sub>...QC<sub>nu</sub> (280)** accessible to the users **U<sub>1</sub>...U<sub>n</sub> (12)** and/or the hidden client requests **HC<sub>n1</sub>...HC<sub>nh</sub> (281)** hidden from the users **U<sub>1</sub>...U<sub>n</sub> (12)**, and/or a combination thereof, and/or may also have information and/or instructions to be utilized by the server **PS (18)** and/or ones of the clients **C<sub>1</sub>...C<sub>n</sub> (16)**.

Alternatively information from the alternate request links **QL<sub>11</sub>...QL<sub>na</sub> (203)**, and/or the server request links **UL<sub>11</sub>...UL<sub>ns</sub> (204)**, and/or the additional request links **SL<sub>11</sub>...SL<sub>nw</sub> (71)**, and/or a combination thereof, may be used by the server **PS (18)** and/or ones of the clients **C<sub>1</sub>...C<sub>n</sub> (16)** to formulate the requests **Q<sub>11</sub>...Q<sub>nm</sub> (29)**.

There may be **m** different or same ones of the requests **Q<sub>n1</sub>...Q<sub>nm</sub> (29)** from the client **C<sub>n</sub> (16)** at any time, and **n x m** different and/or same ones of the requests **Q<sub>11</sub>...Q<sub>nm</sub>**

(29) of the same and/or different ones of the servers  $S_1 \dots S_z$  (20) present on the network 24 at any time.

The queries  $QQ_{n1} \dots QQ_{nm}$  (53) may each be different, one from the other, or the same.

5 The queries  $QS_{n1} \dots QS_{nu}$  (288) accessible to the user  $U_n$  (12) may each be different, one from the other, or the same. The hidden queries  $QH_{n1} \dots QH_{nh}$  (290) may each be different, one from the other, or the same. The number of the queries  $QQ_{n1} \dots QQ_{nm}$  (53) "m" may be substantially the sum of the queries  $QS_{n1} \dots QS_{nu}$  (288) accessible to the user  $U_n$  (12) and the hidden queries  $QH_{n1} \dots QH_{nh}$  (290), i.e.,  $m = u + h$ .

10

There may be  $m$  different or same ones of the queries  $QQ_{n1} \dots QQ_{nm}$  (53) corresponding to the requests  $Q_{n1} \dots Q_{nm}$  (29) from the client  $C_n$  (16) at any time, and  $n \times m$  different and/or same ones of the queries  $QQ_{11} \dots QQ_{nm}$  (53) corresponding to the requests  $Q_{11} \dots Q_{nm}$  (29) of the same and/or different ones of the servers  $S_1 \dots S_z$

15 (20) present on the network 24 at any time.

The server addresses  $AQ_{n1} \dots AQ_{nm}$  (54) may each be different, one from the other, or the same. The server addresses  $A_{n1} \dots A_{nu}$  (265) accessible to the user  $U_n$  (12) may each be different, one from the other, or the same. The hidden server addresses

20  $AH_{n1} \dots AH_{nh}$  (291) may each be different, one from the other, or the same. The number of the server addresses  $AQ_{n1} \dots AQ_{nm}$  (54) "m" may be substantially the sum of the server addresses  $A_{n1} \dots A_{nu}$  (265) accessible to the user  $U_n$  (12) and the hidden server addresses  $AH_{n1} \dots AH_{nh}$  (291), i.e.,  $m = u + h$ .



There may be  $m$  different or same ones of the server addresses  $AQ_{n1}...AQ_{nm}$  (54) corresponding to the requests  $Q_{n1}...Q_{nm}$  (29) from the client  $C_n$  (16) at any time, and  $n \times m$  different and/or same ones of the server addresses  $AQ_{11}...AQ_{nm}$  (54) corresponding to the requests  $Q_{11}...Q_{nm}$  (29) of the same and/or different ones of the servers  $S_1...S_z$  (20) present on the network 24 at any time.

The optional instructions  $VJ_{n1}...VJ_{nk}$  (52) may each be different, one from the other, or the same. The optional instructions  $V_{n1}...V_{nv}$  (289) accessible to the user  $U_n$  (12) may each be different, one from the other, or the same. The optional hidden instructions  $H_{n1}...H_{ni}$  (292) may each be different, one from the other, or the same.

The number of the optional instructions  $VJ_{n1}...VJ_{nk}$  (52) "k" may be substantially the sum of the optional instructions  $V_{n1}...V_{nv}$  (289) accessible to the user  $U_n$  (12) and The optional hidden instructions  $H_{n1}...H_{ni}$  (292), i.e.,  $k = v + i$ .

15

There may be  $m \times k$  different or same ones of the optional instructions  $VJ_{n1}...VJ_{nk}$  (52) corresponding to the requests  $Q_{n1}...Q_{nm}$  (29) from the client  $C_n$  (16) at any time, and  $n \times m \times k$  different and/or same ones of the optional instructions  $VJ_{11}...VJ_{nk}$  (52) corresponding to the requests  $Q_{11}...Q_{nm}$  (29) of the same and/or different ones of the servers  $S_1...S_z$  (20) present on the network 24 at any time.

20

The requests  $Q_{11}...Q_{nm}$  (29) of the servers  $S_1...S_z$  (20) may be made at the same and/or different times. One or more of the requests  $Q_{11}...Q_{nm}$  (29) may be made of

each of the servers  $S_1 \dots S_z$  (20) by the same/and or different ones of the clients  $C_1 \dots C_n$  (16) and/or the server PS (18) at the same and/or different times.

The server PS (18) and/or the client  $C_n$  (16) may make one or more of the requests  $Q_{n1} \dots Q_{nm}$  (29) of the same and/or different ones of the servers  $S_1 \dots S_z$  (20), in accordance with the designation scheme corresponding to the corresponding ones of the server designations  $S_{n1} \dots S_{nm}$  (30), in order to fulfill the services and/or information requirements of the user  $U_n$  (12).

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#### K. REPLIES FROM THE SERVERS

Each of the servers  $S_1 \dots S_z$  (20) communicated therewith replies to the server PS (18) and/or the clients  $C_1 \dots C_n$  (16), in accordance with the designation scheme which designates the servers  $S_1 \dots S_z$  (20) being communicated with corresponding to the requests  $Q_{11} \dots Q_{nm}$  (29) as the corresponding server designations  $S_{11} \dots S_{nm}$  (30), and communicates the corresponding responses  $R_{11} \dots R_{nm}$  (32), associated therewith the requests  $Q_{11} \dots Q_{nm}$  (29), to the server PS (18) and/or the clients  $C_1 \dots C_n$  (16) making the requests  $Q_{11} \dots Q_{nm}$  (29).

Now, ones of the servers  $S_1 \dots S_z$  (20) having been contacted by the server PS (18) and/or the clients  $C_1 \dots C_n$  (16) and the connections opened  $OC_{11} \dots OC_{nm}$  (323) therewith, corresponding to the requests  $Q_{11} \dots Q_{nm}$  (29), according to the server designations  $S_{11} \dots S_{nm}$  (30) at the corresponding server addresses  $A_{11} \dots A_{nu}$  (265) at

the corresponding ports  $W_{11} \dots W_{nm}$  (343) reply to the server PS (18) and/or the contacting clients  $C_1 \dots C_n$  (16) with the corresponding responses  $R_{11} \dots R_{nm}$  (32).

A particular one of the responses  $R_{n1} \dots R_{nm}$  (32), hereinafter designated as the  
5 response  $R_{nm}$  (32), corresponding to one response within the responses  $R_{n1} \dots R_{nm}$   
(32), the response  $R_{nm}$  (32) corresponding to the request  $Q_{nm}$  (29), and the responses  
 $R_{n1} \dots R_{nm}$  (32) corresponding to the requests  $Q_{n1} \dots Q_{nm}$  (29), is shown schematically  
in FIG. 98.

FIG. 98

10 Now, the response  $R_{nm}$  (32) may have a corresponding response header line  $LR_{nm}$   
(351), corresponding optional response header fields  $JR_{n1} \dots JR_{nt}$  (352), and a  
corresponding optional entity body  $RH_{nm}$  (353). The optional entity body  $RH_{nm}$  (353)  
typically has links, and/or descriptions, and/or other information. The request header  
line  $LR_{nm}$  (351) may have a corresponding protocol  $BR_{nm}$  (354), a corresponding  
15 status  $SR_{nm}$  (355), and a corresponding status explanation  $SE_{nm}$  (356).

Ones of the connections may be closed after ones of the responses  $R_{11} \dots R_{nm}$  (32) are  
communicated to the PS (18) and/or to the requesting corresponding ones of the clients  
 $C_1 \dots C_n$  (16).

20

Again, the Timeout per Search Engine 329 is considered to be substantially the  
maximum time for the server PS (18) and/or the particular client  $C_n$  (16) making the  
requests  $Q_{n1} \dots Q_{nm}$  (29) to wait for each of the responses  $R_{n1} \dots R_{nm}$  (32) therefrom

certain ones of the servers  $S_1 \dots S_z$  (20), in accordance with the designation scheme which designates the certain ones of the servers  $S_1 \dots S_z$  (20) to be communicated with corresponding to the requests  $Q_{11} \dots Q_{nm}$  (29) as the corresponding server designations  $S_{11} \dots S_{nm}$  (30).

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If certain ones of the servers  $S_1 \dots S_z$  (20) do not open connections  $OC_{11} \dots OC_{nm}$  (323) therewith and/or communicate the responses  $R_{11} \dots R_{nm}$  (32) thereto the server PS (18) and/or the clients  $C_1 \dots C_n$  (16), and/or if certain other ones of the servers  $S_1 \dots S_z$  (20) do not communicate the responses  $R_{11} \dots R_{nm}$  (32) thereto the server PS (18) and/or

10

the clients  $C_1 \dots C_n$  (16) once connections therewith may have been opened  $OC_{11} \dots OC_{nm}$  (323), corresponding to the requests  $Q_{11} \dots Q_{nm}$  (29), according to the server designations  $S_{11} \dots S_{nm}$  (30), within the timeout set by the Timeout per Search Engine 329, the certain ones of requests  $Q_{n1} \dots Q_{nm}$  (29) of such nonresponding ones of the servers  $S_1 \dots S_z$  (20) may then be cancelled by the server PS (18) and/or the clients

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$C_1 \dots C_n$  (16). Information about such ones of the nonresponding ones of the servers  $S_1 \dots S_z$  (20) may then be communicated therefrom the server PS (18) and/or the clients  $C_1 \dots C_n$  (16) therethrough the corresponding ones of the user interfaces  $I_1 \dots I_n$  (14) thereto the corresponding ones of the users  $U_1 \dots U_n$  (12), according to the server designations  $S_{11} \dots S_{nm}$  (30) corresponding to the certain ones of requests  $Q_{n1} \dots Q_{nm}$

20

(29) of such nonresponding ones of the servers  $S_1 \dots S_z$  (20).

In certain instances, the server PS (18) and/or certain ones of the clients  $C_1 \dots C_n$  (16) may contact certain ones of the servers  $S_1 \dots S_z$  (20) and open the connections

$OC_{11}...OC_{nm}$  (323) therewith, corresponding to the requests  $Q_{11}...Q_{nm}$  (29), according to the server designations  $S_{11}...S_{nm}$  (30), one or more additional times, in order to satisfy the needs of the users  $U_1...U_n$  (12), and/or certain requirements within the optional instructions  $VJ_{n1}...VJ_{nk}$  (52), such as, for example, the URL's per Search Engine 330, and/or as a result of certain information communicated to the PS (18) and/or certain ones of the clients  $C_1...C_n$  (16) within the responses  $R_{11}...R_{nm}$  (32).

If, for example, less links, and/or descriptions, and/or prices/values, and/or images are returned within certain ones of the responses  $R_{11}...R_{nm}$  (32), which may be considered to be first ones of the responses  $R_{11}...R_{nm}$  (32), than are requested by certain ones of the users  $U_1...U_n$  (12) within certain ones of the URL's per Search Engine 330, the server PS (18) and/or certain ones of the clients  $C_1...C_n$  (16) may contact certain ones of the servers  $S_1...S_z$  (20), open the connections  $OC_{11}...OC_{nm}$  (323) therewith, and make additional ones of the requests  $Q_{11}...Q_{nm}$  (29), according to the server designations  $S_{11}...S_{nm}$  (30), one or more additional times, in order to satisfy the needs of the users  $U_1...U_n$  (12). The links, and/or the descriptions, and/or the images returned within and/or parsed therefrom additional ones of the responses  $R_{11}...R_{nm}$  (32) thereto the additional ones of the requests  $Q_{11}...Q_{nm}$  (29) may then be appended thereto the corresponding ones of the links, and/or the corresponding ones of the descriptions, and/or the corresponding ones of the images returned within and parsed therefrom the first ones of the responses  $R_{11}...R_{nm}$  (32)

The servers  $S_1 \dots S_z$  (20) communicate the responses  $R_{11} \dots R_{nm}$  (32) to the requests  $Q_{11} \dots Q_{nm}$  (29) thereto the server PS (18) and/or specific ones of the clients  $C_1 \dots C_n$  (16), in accordance with the designation scheme corresponding to the corresponding ones of the server designations  $S_{11} \dots S_{nm}$  (30). Alternatively, and/or additionally, in  
5 certain instances, certain ones of the servers  $S_1 \dots S_z$  (20), corresponding to certain ones of the server designations  $S_{11} \dots S_{nm}$  (30), may request additional information of the server PS (18) and/or specific ones of the clients  $C_1 \dots C_n$  (16), prior to communicating the responses  $R_{11} \dots R_{nm}$  (32) to the requests  $Q_{11} \dots Q_{nm}$  (29). Upon receiving such additional information from the server PS (18) and/or the specific ones of the clients  
10  $C_1 \dots C_n$  (16), the certain ones of the servers  $S_1 \dots S_z$  (20), corresponding to the certain ones of the server designations  $S_{11} \dots S_{nm}$  (30), may then communicate the responses  $R_{11} \dots R_{nm}$  (32) to the requests  $Q_{11} \dots Q_{nm}$  (29) thereto the server PS (18) and/or the specific ones of the clients  $C_1 \dots C_n$  (16).

15 In such certain instances, in more detail, the server PS (18) and/or certain ones of the clients  $C_1 \dots C_n$  (16) may contact certain ones of the servers  $S_1 \dots S_z$  (20) and open the connections  $OC_{11} \dots OC_{nm}$  (323) therewith, corresponding to the requests  $Q_{11} \dots Q_{nm}$  (29), according to the server designations  $S_{11} \dots S_{nm}$  (30), one or more additional times, as a result of certain information communicated to the PS (18) and/or certain ones of  
20 the clients  $C_1 \dots C_n$  (16) within the responses  $R_{11} \dots R_{nm}$  (32), such as, for example, information obtained from and/or parsed from the responses  $R_{11} \dots R_{nm}$  (32). This information is typically within certain ones of the response header fields  $JR_{11} \dots JR_{nt}$

(352), but may also be within the corresponding optional entity bodies  $RH_{11}...RH_{nm}$  (353) and/or the corresponding response header lines  $LR_{11}...LR_{nm}$  (351).

Now, in such certain instances, the certain ones of the servers  $S_1...S_z$  (20) request the information from the server  $PS$  (18) and/or certain ones of the clients  $C_1...C_n$  (16), prior to communicating the responses  $R_{11}...R_{nm}$  (32) thereto the server  $PS$  (18) and/or the certain ones of the clients  $C_1...C_n$  (16). The server  $PS$  (18) and/or the certain ones of the clients  $C_1...C_n$  (16) being requested such information may then respond to the requests for such information, by communicating the requested information to the ones of the requesting servers  $S_1...S_z$  (20). Upon receipt of the requested information at the ones of the requesting servers  $S_1...S_z$  (20), the requesting ones of the servers  $S_1...S_z$  (20) reply thereto the server  $PS$  (18) and/or the certain ones of the clients  $C_1...C_n$  (16) with the responses  $R_{11}...R_{nm}$  (32). Such requests for information from the servers  $S_1...S_z$  (20) may occur not at all, and/or one or more times.

#### L. PARSING, PROCESSING, FORMATTING, SORTING, GROUPING, AND

##### ORGANIZING RESPONSES INTO SERVICE AND/OR INFORMATION RESPONSES

A particular one of the optional entity bodies  $RH_{11}...RH_{nm}$  (353), designated as the entity body  $RH_{nm}$  (353), of a particular one of the responses  $R_{11}...R_{nm}$  (32), designated as the response  $R_{nm}$  (32), may have optional response individual information groups  $LS_{nm1}...LS_{nmr}$  (360) and optional information  $LI_{nm}$  (361), as shown in FIG. 99.

Each of the optional response individual information groups **LS<sub>nm1</sub>...LS<sub>nmr</sub> (360)** may have and/or be parsed into corresponding optional response links **LK<sub>nm1</sub>...LK<sub>nmr</sub> (362)**, and/or corresponding optional response descriptions **DK<sub>nm1</sub>...DK<sub>nmr</sub> (363)**, and/or corresponding optional response prices/values **PK<sub>nm1</sub>...PK<sub>nmr</sub> (364)**, and/or corresponding optional response images **IK<sub>nm1</sub>...IK<sub>nmr</sub> (365)**, as shown in FIG. 99.

The optional response links **LK<sub>nm1</sub>...LK<sub>nmr</sub> (362)**, the corresponding optional response descriptions **DK<sub>nm1</sub>...DK<sub>nmr</sub> (363)**, the corresponding optional response prices/values **PK<sub>nm1</sub>...PK<sub>nmr</sub> (364)**, and the corresponding optional response images **IK<sub>nm1</sub>...IK<sub>nmr</sub> (365)**, corresponding to the optional response individual information groups **LS<sub>nm1</sub>...LS<sub>nmr</sub> (360)** are typically associated correspondingly one with the other.

The optional response link **LK<sub>nm1</sub> (362)**, the corresponding optional response description **DK<sub>nm1</sub> (363)**, the corresponding optional response price/value **PK<sub>nm1</sub> (364)**, and the corresponding optional response image **IK<sub>nm1</sub> (365)**, corresponding to the optional response individual information group **LS<sub>nm1</sub> (360)** are typically associated correspondingly one with the other. The optional response link **LK<sub>nm2</sub> (362)**, the corresponding optional response description **DK<sub>nm2</sub> (363)**, the corresponding optional response price/value **PK<sub>nm2</sub> (364)**, and the corresponding optional response image **IK<sub>nm2</sub> (365)**, corresponding to the optional response individual information group **LS<sub>nm2</sub> (360)** are typically associated correspondingly one with the other, and so on. The optional response link **LK<sub>nmr</sub> (362)**, the corresponding optional



response description **DK<sub>n<sub>m</sub>r</sub> (363)**, the corresponding optional response price/value **PK<sub>n<sub>m</sub>r</sub> (364)**, and the corresponding optional response image **IK<sub>n<sub>m</sub>r</sub> (365)**, corresponding to the optional response individual information group **LS<sub>n<sub>m</sub>r</sub> (360)** are, thus, typically associated correspondingly one with the other.

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The optional information **LI<sub>n<sub>m</sub></sub> (361)** may have additional links, and/or additional descriptions, and/or additional images, and/or prices/values, and/or other information, and/or services, and/or media, all and/or a portion of which may be used and/or discarded by the server **PS (18)** and/or the clients **C<sub>1</sub>...C<sub>n</sub> (16)**. The optional information **LI<sub>n<sub>m</sub></sub> (361)** is typically filtered from the optional entity body **RH<sub>n<sub>m</sub></sub> (353)** and discarded, and/or other unwanted information and/or media is also typically filtered from the response **R<sub>n<sub>m</sub></sub> (32)**, and/or the optional entity body **RH<sub>n<sub>m</sub></sub> (353)**, and discarded.

15 The optional response individual information groups **LS<sub>n<sub>m</sub>1</sub>...LS<sub>n<sub>m</sub>r</sub> (360)** are typically parsed and/or processed and/or formatted therefrom the entity body **RH<sub>n<sub>m</sub></sub> (353)** of the response **R<sub>n<sub>m</sub></sub> (32)**, and/or parsed, and/or processed, and/or formatted, and/or organized, and/or grouped thereinto the addressable individual information groups **LG<sub>n<sub>m</sub>1</sub>...LG<sub>n<sub>m</sub>r</sub> (80)** of the addressable response information group **RG<sub>n<sub>m</sub></sub> (57)**, correspondingly associated therewith the response **R<sub>n<sub>m</sub></sub> (32)**, as shown in FIGS.

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100 and 101.

FIG. 100 shows the addressable response information group **RG<sub>nm</sub> (57)** having the addressable individual information groups **LG<sub>nm1</sub>...LG<sub>nmr</sub> (80)** parsed, and/or processed, and/or formatted, and/or organized, and/or grouped thereinto the addressable response information group **RG<sub>nm</sub> (57)** therefrom the optional entity body **RH<sub>nm</sub> (353)** of FIG. 99.

FIG. 101 shows a particular one of the optional response individual information groups **LS<sub>nm1</sub>...LS<sub>nmr</sub> (360)**, designated as the optional response individual information group **LS<sub>nmr</sub> (360)**, parsed, and/or processed, and/or formatted, and/or organized, and/or grouped thereinto a particular one of the addressable individual information groups **LG<sub>nm1</sub>...LG<sub>nmr</sub> (80)**, designated as the addressable individual information group **LG<sub>nmr</sub> (80)**.

The addressable individual information groups **LG<sub>nm1</sub>...LG<sub>nmr</sub> (80)** are typically parsed, and/or processed, and/or formatted for consistency of presentation and/or appearance one with the other, as the addressable individual information groups **LG<sub>nm1</sub>...LG<sub>nmr</sub> (80)** are incorporated thereinto the addressable response information group s **RG<sub>n1</sub>...RG<sub>nm</sub> (57)** therefrom the responses **R<sub>n1</sub>...R<sub>nm</sub> (32)**.

Alternatively and/or additionally the addressable individual information groups **LG<sub>nm1</sub>...LG<sub>nmr</sub> (80)** may be incorporated thereinto the addressable response information group s **RG<sub>n1</sub>...RG<sub>nm</sub> (57)** therefrom the responses **R<sub>n1</sub>...R<sub>nm</sub> (32)** in an as-is condition and/or in raw form.

The optional response links **LK<sub>nm1</sub>...LK<sub>nmr</sub> (362)** are typically parsed, and/or processed, and/or formatted thereinto the corresponding optional links **LD<sub>nm1</sub>...LD<sub>nmr</sub> (82)**. The optional response descriptions **DK<sub>nm1</sub>...DK<sub>nmr</sub> (363)** are typically parsed, and/or processed, and/or formatted thereinto the optional descriptions **DD<sub>nm1</sub>...DD<sub>nmr</sub> (83)**. The optional response prices/values **PK<sub>nm1</sub>...PK<sub>nmr</sub> (364)** are typically parsed, and/or processed, and/or formatted thereinto the corresponding optional prices/values **PD<sub>nm1</sub>...PD<sub>nmr</sub> (84)**. The optional response images **IK<sub>nm1</sub>...IK<sub>nmr</sub> (365)** are typically parsed, and/or processed, and/or formatted thereinto the corresponding optional images **ID<sub>nm1</sub>...ID<sub>nmr</sub> (85)**.

Each of the optional links **LD<sub>m1</sub>...LD<sub>mr</sub> (82)** are also typically parsed, and/or processed, and/or formatted for consistency of presentation and/or appearance one with the other. Alternatively and/or additionally the optional links **LD<sub>nm1</sub>...LD<sub>nmr</sub> (82)** may be retained in an as-is condition and/or in raw form.

Each of the optional descriptions **DD<sub>nm1</sub>...DD<sub>nmr</sub> (83)** are also typically parsed, and/or processed, and/or formatted for consistency of presentation and/or appearance one with the other. Alternatively and/or additionally the optional links optional descriptions **DD<sub>nm1</sub>...DD<sub>nmr</sub> (83)** may be retained in an as-is condition and/or in raw form.

Each of the optional prices/values **PD<sub>nm1</sub>...PD<sub>nmr</sub> (84)** are also typically parsed, and/or processed, and/or formatted for consistency of presentation and/or appearance one with

the other. Alternatively and/or additionally the optional prices/values  $PD_{nm1}...PD_{nmr}$  (84) may be retained in an as-is condition and/or in raw form.

Each of the optional images  $ID_{nm1}...ID_{nmr}$  (85) are also typically parsed, and/or  
5 processed, and/or formatted for consistency of presentation and/or appearance one with  
the other. Alternatively and/or additionally the optional images  $ID_{nm1}...ID_{nmr}$  (85)  
may be retained in an as-is condition and/or in raw form.

The optional links  $LD_{nm1}...LD_{nmr}$  (82), and/or the optional descriptions  
10  $DD_{nm1}...DD_{nmr}$  (83), and/or the optional prices/values  $PD_{nm1}...PD_{nmr}$  (84), and/or  
the optional images  $ID_{nm1}...ID_{nmr}$  (85), correspondingly associated therewith the  
response  $R_{nm}$  (32), may additionally and/or alternatively be parsed individually and/or  
separately, and incorporated therein to the addressable response information group  
 $RG_{nm}$  (57) therefrom the optional entity body  $RH_{nm}$  (353), as shown in FIG. 102.

15 The response header line  $LR_{nm}$  (351) and/or the optional response header fields  
 $JR_{n1}...JR_{nt}$  (352) may also have information, which the server  $PS$  (18) and/or the  
clients  $C_1...C_n$  (16) may use.

20 The optional information  $LI_{nm}$  (361) and/or certain information and/or media within  
the response  $R_{nm}$  (32), particularly within the optional entity body  $RH_{nm}$  (353), may  
be optionally used by the server  $PS$  (18) and/or the clients  $C_1...C_n$  (16), and/or

optionally incorporated therein to the addressable response information group **RG<sub>nm</sub>** (57).

Each of the optional response individual information groups **LS<sub>nm1</sub>...LS<sub>nmr</sub>** (360) therefrom each of the responses **R<sub>n1</sub>...R<sub>nm</sub>** (32) may be compared one with the other, and duplicate ones of the of the optional response individual information groups **LS<sub>nm1</sub>...LS<sub>nmr</sub>** (360) may be discarded.

Alternatively and/or additionally, each of the optional addressable individual information groups **LG<sub>n11</sub>...LG<sub>nmr</sub>** (80) therefrom each of the addressable response information groups **RG<sub>n1</sub>...RG<sub>nm</sub>** (57) may be compared one with the other, and duplicate ones of the optional addressable individual information groups **LG<sub>n11</sub>...LG<sub>nmr</sub>** (80) may be discarded.

Each of the optional response individual information groups **LS<sub>111</sub>...LS<sub>nmr</sub>** (360) and/or portions thereof therefrom the entity bodies **RH<sub>11</sub>...RH<sub>nm</sub>** (353) of the responses **R<sub>11</sub>...R<sub>nm</sub>** (32) may also be optionally compared one with the other, and duplicate ones of the of the optional response individual information groups **LS<sub>111</sub>...LS<sub>nmr</sub>** (360) may be optionally discarded.

Alternatively and/or additionally, each of the optional links **LK<sub>n11</sub>...LK<sub>nmr</sub>** (362), and/or the optional descriptions **DK<sub>n11</sub>...DK<sub>nmr</sub>** (363), and/or the optional prices/values **PD<sub>nm1</sub>...PD<sub>nmr</sub>** (365), and/or the optional images **IK<sub>n11</sub>...IK<sub>nmr</sub>** (365),

therefrom each of the responses  $R_{n1} \dots R_{nm}$  (32) may be compared one with the other of like kind, and duplicate ones of the optional links  $LK_{n11} \dots LK_{nmr}$  (362), and/or the optional descriptions  $DK_{n11} \dots DK_{nmr}$  (363), and/or the optional prices/values  $PK_{nm1} \dots PK_{nmr}$  (364), and/or the optional images  $IK_{n11} \dots IK_{nmr}$  (364), and/or a combination thereof may be discarded.

Alternatively and/or additionally, each of the optional links  $LD_{n11} \dots LD_{nmr}$  (82), and/or the optional descriptions  $DD_{n11} \dots DD_{nmr}$  (83), and/or the optional prices/values  $PD_{nm1} \dots PD_{nmr}$  (84), and/or the optional images  $ID_{n11} \dots ID_{nmr}$  (85) therefrom each of the addressable response information groups  $RG_{n1} \dots RG_{nm}$  (57) may be compared one with the other of like kind, and duplicate ones of the optional links  $LD_{n11} \dots LD_{nmr}$  (82), and/or the optional descriptions  $DD_{n11} \dots DD_{nmr}$  (83), and/or the optional prices/values  $PD_{nm1} \dots PD_{nmr}$  (85), and/or the optional images  $ID_{n11} \dots ID_{nmr}$  (85), and/or a combination thereof may be discarded.

The optional links  $LK_{n11} \dots LK_{nmr}$  (362) are typically compared one with the other, and duplicate ones of the corresponding optional links  $LK_{n11} \dots LK_{nmr}$  (362), and/or the corresponding optional descriptions  $DK_{n11} \dots DK_{nmr}$  (363), and/or the corresponding optional images  $IK_{n11} \dots IK_{nmr}$  (364), and/or the corresponding optional prices/values  $PK_{nm1} \dots PK_{nmr}$  (365) are discarded, leaving only one of any ones of the duplicate optional links  $LK_{n11} \dots LK_{nmr}$  (362) and/or the corresponding optional descriptions  $DK_{n11} \dots DK_{nmr}$  (363), and/or the corresponding optional images  $IK_{n11} \dots IK_{nmr}$  (364), and/or the optional prices/values  $PK_{nm1} \dots PK_{nmr}$  (365) remaining.

The optional prices/values  $PD_{nm1} \dots PD_{nmr}$  (84) and/or the corresponding optional links  $LD_{n11} \dots LD_{nmr}$  (82) and/or the corresponding optional descriptions  $DD_{n11} \dots DD_{nmr}$  (83), and/or the corresponding optional images  $ID_{n11} \dots ID_{nmr}$  (85) may be sorted with respect to the optional prices/values  $PD_{nm1} \dots PD_{nmr}$  (84), in accordance with sorting criteria in the optional instructions  $VJ_{n1} \dots VJ_{nk}$  (52) and/or in accordance with default criteria resident within the server  $PS$  (18) and/or the client  $C_n$  (16).

The optional links  $LD_{n11} \dots LD_{nmr}$  (82), and/or the corresponding optional descriptions  $DD_{n11} \dots DD_{nmr}$  (83), and/or the corresponding optional prices/values  $PD_{nm1} \dots PD_{nmr}$  (84), and/or the corresponding optional images  $ID_{n11} \dots ID_{nmr}$  (85) may be sorted, for example, in ascending order with respect to the optional prices/values  $PD_{nm1} \dots PD_{nmr}$  (84) having the lowest price therein being presented to the user  $U_n$  (12) at the user interface  $I_n$  (14) first and the highest price therein last.

Alternatively and/or additionally, the optional links  $LD_{n11} \dots LD_{nmr}$  (82), and/or the corresponding optional descriptions  $DD_{n11} \dots DD_{nmr}$  (83), and/or the corresponding optional prices/values  $PD_{nm1} \dots PD_{nmr}$  (84), and/or the corresponding optional images  $ID_{n11} \dots ID_{nmr}$  (85) may be sorted, for example, in ascending or descending alphabetical order with respect to the optional links  $LD_{n11} \dots LD_{nmr}$  (82) and/or the corresponding optional descriptions  $DD_{n11} \dots DD_{nmr}$  (83) being presented to the user  $U_n$  (12) at the user interface  $I_n$  (14).

Other sorting criteria may be used for the optional links  $LD_{n11} \dots LD_{nmr}$  (82), and/or the optional descriptions  $DD_{n11} \dots DD_{nmr}$  (83), and/or the optional prices/values  $PD_{nm1} \dots PD_{nmr}$  (84), and/or the optional images  $ID_{n11} \dots ID_{nmr}$  (85), and may depend upon needs of the user  $U_n$  (12). The sorting criteria may be determined by the user  $U_n$  (12).

Sorting criteria gives the user  $U_n$  (12) the ability to formulate how information is presented to the user  $U_n$  (12) at the user  $U_n$  (12), and may be incorporated therein the optional instructions  $VJ_{n1} \dots VJ_{nk}$  (52), which may be entered therein the user interface  $I_n$  (14) therethrough the user input  $UI_n$  (25) by the user  $U_n$  (12). The sorting criteria may additionally and/or alternatively be resident within the server  $PS$  (18) and/or the client  $C_n$  (16).

Now again, the labelled individual information group  $LL_{nzu}$  (86) associated therewith the addressable query information group  $GI_{nz}$  (63) has the optional group identifier  $GL_{nc}$  (87), the optional query link identifier  $LN_{ncu}$  (88), the optional resource location identifier  $SU_{nw}$  (89), the optional server and/or query identifier  $SI_{nm}$  (90), and/or the optional server link identifier  $LX_{nmr}$  (91) appended thereto the addressable individual information group  $LG_{nmr}$  (80), as shown in FIG. 68.

FIGS. 103 and 104 show typical ones of the addressable query information group  $GI_{nz}$  (63), based upon certain sorting and/or grouping criteria, having the labelled individual information groups  $LL_{nz1} \dots LL_{nzu}$  (86), the optional database labelled individual



information groups **RL<sub>nz1</sub>...RL<sub>nzx</sub> (92)**, the optional query description **QT<sub>nz</sub> (93)**, the optional server descriptions and/or links **ST<sub>nz1</sub>...ST<sub>nzf</sub> (94)**, and the optional advertisements and/or links **LT<sub>nz1</sub>...LT<sub>nzf</sub> (95)** incorporated therein to certain typical ones of the typical service and/or information response forms **IS<sub>n</sub> (39)** of FIGS. 27-52.

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The client-server multitasking system **10** of the present invention, the client-server multitasking process **99**, and the multitasking process **104**, the server **PS (18)** and/or the clients **C<sub>1</sub>...C<sub>n</sub> (16)**, then, are capable of retrieving, parsing, processing, formatting, organizing, grouping, sorting, and consolidating services and/or information therefrom the same and/or different ones of the servers **S<sub>1</sub>...S<sub>z</sub> (20)**, and/or the optional servers **SO<sub>1</sub>...SO<sub>p</sub> (22)**, and/or the clients **C<sub>1</sub>...C<sub>n</sub> (16)**, having the same and/or different structures, formats, organizations, groupings, and/or data structures, and incorporating the parsed, processed, formatted, organized, grouped, sorted, and consolidated services and/or information therein to the user responses **UR<sub>1</sub>...UR<sub>n</sub> (37)** for delivery to the user interfaces **I<sub>1</sub>...I<sub>n</sub> (14)** and use by the users **U<sub>1</sub>...U<sub>n</sub> (12)**.

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The client-server multitasking system **10** of the present invention, the client-server multitasking process **99**, and the multitasking process **104**, the server **PS (18)** and/or the clients **C<sub>1</sub>...C<sub>n</sub> (16)**, then, are capable of retrieving, parsing, processing, formatting, organizing, grouping, sorting, and consolidating services and/or information therefrom the same and/or different ones of each of the optional response individual information groups **LS<sub>111</sub>...LS<sub>nmr</sub> (360)**, and/or the optional response links **LK<sub>111</sub>...LK<sub>nmr</sub> (362)**, and/or the optional response descriptions **DK<sub>111</sub>...DK<sub>nmr</sub> (363)**, and/or the optional

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response prices/values  $PK_{111} \dots PK_{nmr}$  (364), and/or the optional response images  $IK_{nm1} \dots IK_{nmr}$  (365) therefrom the entity bodies  $RH_{11} \dots RH_{nm}$  (353) of the responses  $R_{11} \dots R_{nm}$  (32), having the same and/or different structures, formats, organizations, groupings, and/or data structures, and incorporating the parsed, processed, formatted, organized, grouped, sorted, and consolidated services and/or information thereinto the user responses  $UR_1 \dots UR_n$  (37) for delivery to the user interfaces  $I_1 \dots I_n$  (14) and use by the users  $U_1 \dots U_n$  (12).

10 **M. ADDITIONAL FEATURES AND/OR OTHER CONSIDERATIONS**

The present invention is directed to a client-server multitasking system and process capable of information and/or service retrieval from the same and/or different ones of servers substantially simultaneously and on-the-fly, using the same and/or different ones of queries of the same and/or different ones of the servers, and sorting, grouping, and/or organizing responses therefrom substantially on-the-fly, and communicating service and/or information responses to the requestors and/or users substantially simultaneously and on-the-fly. The client-server multitasking system and process is capable of use on a variety of networks, such as global area networks, and in particular the internet, metropolitan area networks, wide area networks, and local area networks, and be capable of searching search engines and/or other sites substantially simultaneously and on-the-fly.