

CLAIMS

1. A method implemented by one or more computing devices, the method comprising:
 - receiving, by a content server, a query request sent by a client side and obtaining content of a type field of the query request;
 - obtaining, by the content server, a type of the query request based at least in part on the content of the type field;
 - adding, by the content server, a type identifier corresponding to the type and a domain name of a preset authorized Domain Name System (DNS) into the query request to obtain a target query request; and
 - sending, by the content server, the target query request to the local DNS to enable the local DNS to send the target query request to the preset authorized DNS according to the domain name of the preset authorized DNS in the target query request and receiving, by the content server, a response message corresponding to the type of the query request from the preset authorized DNS;

wherein the content server is located between a client side and a distributed management system, the distributed management system including the preset authorized DNS and one or more local DNS, and wherein each local DNS is responsible for a different type of querying information based on a type of the target query request; and

the client side negotiates with the local DNS and the preset authorized DNS in advance regarding respective information represented by each segment in the response message.
2. The method of claim 1, wherein the query request comprises an Internet Protocol (IP) address of the client side.
3. The method of claim 2, wherein adding the type identifier corresponding to the type and the domain name of the preset authorized DNS into the query request to obtain the target query request comprises:
 - arranging a plurality of segments of the IP address in a reverse order; and
 - sequentially adding the type identifier corresponding to the type and the domain name of the preset authorized DNS to the plurality of segments of the IP address that are in the reverse order to obtain the target query request.

4. The method of claim 2, wherein the content of the type field of the query request comprises one or more of a query for a location to which the IP address belongs and a query for whether the IP address is included in a blacklist.

5. The method of claim 4, wherein the response message comprises one or more of information which identifies the location to which the IP address belongs and information which identifies whether the IP address is included in the blacklist.

6. The method of claim 5, further comprising one or more of:
storing a correspondence relationship between the IP address and the information which identifies the location to which the IP address belongs in the local DNS; and
storing a correspondence relationship between the IP address and the information which identifies whether the IP address is included in the blacklist in the local DNS.

7. A content server comprising:
one or more processors;
memory;
a receiving unit stored in the memory and when executed by the one or more processors receives a query request sent by a client side and to obtain content of a type field of the query request;
an acquisition unit stored in the memory and when executed by the one or more processors obtains a type of the query request based on the content of the type field;
an adding unit stored in the memory and when executed by the one or more processors adds a type identifier corresponding to the type obtained by the acquisition unit and a domain name of a preset authorized DNS (Domain Name System) into the query request to obtain a target query request; and
a sending unit stored in the memory and when executed by the one or more processors sends the target query request obtained by the adding unit to a local DNS to enable the local DNS to send the target query request to the preset authorized DNS according to the domain name of the preset authorized DNS in the target query request and to receive a response message corresponding to the type of the query request from the preset authorized DNS;
wherein the content server is located between a client side and a distributed management system, the distributed management system including the preset authorized DNS and one or

more local DNS, and wherein each local DNS is responsible for a different type of querying information based on a type of the target query request; and

the client side negotiates with the local DNS and the preset authorized DNS in advance regarding respective information represented by each segment in the response message.

8. The server of claim 7, wherein the query request includes an IP (Internet Protocol) address of the client side.

9. The server of claim 8, wherein the adding unit is further configured to arrange a plurality of segments of the IP address in a reverse order and to sequentially add the type identifier corresponding to the type and the domain name of the preset authorized DNS to the plurality of segments of the IP address that are in the reverse order to obtain the target query request.

10. The server of claim 8, wherein the content of the type field of the query request comprises one or more of: a query for a location to which the IP address belongs and a query for whether the IP address is included in a blacklist.

11. The server of claim 10, wherein the response message comprises one or more of information which identifies the location to which the IP address belongs and information which identifies whether the IP address is included in the blacklist.

12. The server of claim 11, further comprising a caching unit stored in the memory and executable by the one or more processors to cache one or more of a correspondence relationship between the IP address and the information which identifies the location to which the IP address belongs in the local DNS, and a correspondence relationship between the IP address and the information which identifies whether the IP address is included in the blacklist in the local DNS.

13. One or more computer-readable media storing executable instructions that, when executed by one or more processors, cause the one or more processors to perform acts comprising:

receiving, by a content server, a query request sent by a client side and obtaining content of a type field of the query request;

obtaining, by the content server, a type of the query request based at least in part on the

content of the type field;

adding, by the content server, a type identifier corresponding to the type and a domain name of a preset authorized Domain Name System (DNS) into the query request to obtain a target query request; and

sending, by the content server, the target query request to the local DNS to enable the local DNS to send the target query request to the preset authorized DNS according to the domain name of the preset authorized DNS in the target query request and receiving, by the content server, a response message corresponding to the type of the query request from the preset authorized DNS;

wherein the content server is located between a client side and a distributed management system, the distributed management system including the preset authorized DNS and one or more local DNS, and wherein each local DNS is responsible for a different type of querying information based on a type of the target query request; and

the client side negotiates with the local DNS and the preset authorized DNS in advance regarding respective information represented by each segment in the response message.

14. The one or more computer-readable media of claim 13, wherein the query request includes an Internet Protocol (IP) address of the client side.

15. The one or more computer-readable media of claim 14, wherein adding the type identifier corresponding to the type and the domain name of the preset authorized DNS into the query request to obtain the target query request comprises:

arranging a plurality of segments of the IP address in a reverse order; and

sequentially adding the type identifier corresponding to the type and the domain name of the preset authorized DNS to the plurality of segments of the IP address that are in the reverse order to obtain the target query request.

16. The one or more computer-readable media of claim 14, wherein the content of the type field of the query request comprises one or more of a query for a location to which the IP address belongs and a query for whether the IP address is included in a blacklist.

17. The one or more computer-readable media of claim 16, wherein the response message comprises one or more of information which identifies the location to which the IP address belongs and information which identifies whether the IP address is included in the blacklist.

18. The one or more computer-readable media of claim 17, the acts further comprising one or more of:

storing a correspondence relationship between the IP address and the information which identifies the location to which the IP address belongs in the local DNS; and

storing a correspondence relationship between the IP address and the information which identifies whether the IP address is included in the blacklist in the local DNS.