CLAIMS

1. A system comprising:

at least one processor; and

memory, operatively connected to the at least one processor and storing instructions that, when executed by the at least one processor, cause the system to perform a set of operations, the set of operations comprising:

receiving a request to resolve a hostname of a content distribution network (CDN), the request comprising a source Internet Protocol (IP) address of a requestor;

determining an edge server of the CDN, wherein the edge server is associated with an IP address subnet;

generating, based on the IP address subnet of the edge server, a response IP address comprising requestor information, the requestor information comprising an indication of the source IP address of the requestor; and

providing a response to the request to resolve the hostname, wherein a payload of the response comprises the generated response IP address;

receiving a mapping comprising an association of the requestor with a predicted location for a population of client computing devices associated with the requestor;

receiving, from the requestor, another request to resolve the hostname of the CDN;

determining a second edge server of the CDN based at least in part on the mapping, wherein the second edge server is not the first edge server; and

providing a response to the another request comprising an IP address associated with the second edge server.

~~2. The system of claim 1, wherein the edge server is a first edge server and wherein the set of operations further comprises:~~

~~receiving a mapping comprising an association of the requestor with a predicted location for a population of client computing devices associated with the requestor;~~

~~receiving, from the requestor, another request to resolve the hostname of the CDN;~~

~~determining a second edge server of the CDN based at least in part on the mapping, wherein the second edge server is not the first edge server; and~~

~~providing a response to the another request comprising an IP address associated with the second edge server.~~

~~3~~2. The system of claim 1, wherein:

the generated response IP address is an IPv6 address;

the source IP address of the requestor is an IPv4 address; and

the indication of the source IP address is a full representation of the IPv4 address.

~~4~~3. The system of claim 1, wherein:

the generated response IP address is an IPv6 address;

the source IP address of the requestor is an IPv6 address; and

the indication of the source IP address is a subset of bits of the IPv6 address of the source IP address.

~~5~~4. The system of claim 1, wherein the IP address subnet of the edge server is in a most significant set of bits of the generated response IP address and the requestor information is in a least significant set of bits of the generated response IP address.

~~6~~5. The system of claim 1, wherein the requestor is an intermediate Domain Name System (DNS) server.

~~7~~6. The system of claim 1, wherein determining the edge server of the CDN comprises evaluating a location associated with the requestor.

~~8. A method for processing a Domain Name System (DNS) resolution request based on a population of client computing devices associated with a requestor, the method comprising:~~

~~receiving, from the requestor, a request to resolve a hostname of a content distribution network (CDN);~~

~~identifying a mapping associated with the requestor, the mapping associating the requestor with a population of client computing devices served by with the requestor;~~

~~determining, based at least in part on the mapping, an edge server of the CDN;~~

~~generating a response IP address for the determined edge server of the CDN; and~~

~~providing a DNS resolution response to the received request, wherein a payload of~~

~~the DNS resolution response comprises the generated response IP address.~~

~~9. The method of claim 8, wherein the determined edge server is associated with an Internet Protocol (IP) address subnet and wherein the response IP address is generated based on the IP address subnet of the edge server and comprises requestor information indicating of an IP address of the requestor.~~

~~10. The method of claim 8, wherein identifying the mapping comprises:~~

~~selecting the mapping from a set of mappings based on an Internet Protocol (IP) address of the requestor.~~

~~11. The method of claim 8, wherein determining the edge server of the CDN comprises:~~

~~selecting the edge server from a set of edge servers of the CDN based at least in part on proximity of the edge server to a predicted location for the population of client computing devices associated with the requestor.~~

~~12. The method of claim 8, wherein the requestor is an intermediate DNS server.~~

~~13. The method of claim 9, wherein:~~

~~the generated response IP address is an IPv6 address;~~

~~the IP address of the requestor is an IPv6 address; and~~

~~the indication of the IP address of the requestor is a subset of bits of the IPv6 address of the requestor.~~

~~14~~7. A method for embedding requestor information in a Domain Name System (DNS) resolution request, the method comprising:

receiving a request to resolve a hostname of a content distribution network (CDN), the request comprising a source Internet Protocol (IP) address of a requestor;

determining a~~n~~ first edge server of the CDN, wherein the edge server is associated with an IP address subnet;

generating, based on the IP address subnet of the first edge server, a response IP address comprising requestor information, the requestor information comprising an indication of the source IP address of the requestor; and

providing a response to the request to resolve the hostname, wherein a payload of the response comprises the generated response IP address;

receiving a mapping comprising an association of the requestor with a predicted location for a population of client computing devices associated with the requestor;

receiving, from the requestor, another request to resolve the hostname of the CDN;

determining a second edge server of the CDN based at least in part on the mapping, wherein the second edge server is not the first edge server; and

providing a response to the another request comprising an IP address associated with the second edge server.

~~15. The method of claim 14, wherein the edge server is a first edge server and wherein the method further comprises:~~

~~receiving a mapping comprising an association of the requestor with a predicted location for a population of client computing devices associated with the requestor;~~

~~receiving, from the requestor, another request to resolve the hostname of the CDN;~~

~~determining a second edge server of the CDN based at least in part on the mapping, wherein the second edge server is not the first edge server; and~~

~~providing a response to the another request comprising an IP address associated with the second edge server.~~

~~16~~8. The method of claim ~~14~~7, wherein:

the generated response IP address is an IPv6 address;

the source IP address of the requestor is an IPv4 address; and

the indication of the source IP address is a full representation of the IPv4 address.

~~17~~9. The method of claim ~~14~~7, wherein:

the generated response IP address is an IPv6 address;

the source IP address of the requestor is an IPv6 address; and

the indication of the source IP address is a subset of bits of the IPv6 address of the source IP address.

~~18~~10. The method of claim ~~14~~7, wherein the IP address subnet of the edge server is in a most significant set of bits of the generated response IP address and the requestor information is in a least significant set of bits of the generated response IP address.

~~19~~11. The method of claim ~~14~~7, wherein the requestor is an intermediate Domain Name System (DNS) server.

~~20~~12. The method of claim ~~14~~7, wherein determining the edge server of the CDN comprises evaluating a location associated with the requestor.