

[0004] Content providers are generally motivated to provide requested content to client computing devices often with consideration of efficient transmission of the requested content to the client computing device and/or consideration of a cost associated with the transmission of the content. Accordingly, content providers often consider factors such as latency of delivery of requested content in processing client computing device requests in order to meet service level agreements or to generally improve the quality of delivery service.

SUMMARY

[0004A] According to one aspect, there is provided a computer-implemented method for managing request routing functionality comprising: obtaining registration information at a service provider for registering one or more content providers with the service provider, the registration corresponding to hosting at least of portion of request routing functionality associated with one or more resources provided by the content provider; obtaining identification of request routing information to be utilized by the service provider in processing and resolving DNS queries; obtaining a DNS query from a client computing device at a first DNS server, wherein the DNS query corresponds to a requested resource associated with a resource identifier and wherein the first DNS server corresponds to the service provider; and providing the client computing device with at least one of an identifier corresponding to a storage component for the requested resource based on supplemental request routing information not included in the resource request and an alternative resource identifier query to resolve to a domain corresponding to the service provider and the supplemental request routing information not included in the first resource identifier.

[0004B] According to another aspect, there is provided a system for request routing comprising an interface component for obtaining registration information at a service provider for registering one or more content providers with the service provider, the registration corresponding to hosting at least of portion of request routing functionality associated with one or more resources provided by the content provider; and identification of request routing information to be utilized by the service provider in processing and resolving DNS queries; a first network point of presence associated with a service provider, wherein the first network point of presence includes a DNS server component that receives a DNS query from a client computing device, wherein the DNS query corresponds to a requested resource associated with a first

resource identifier, and wherein the DNS server in the first network point of presence is operable to: determine that the first resource identifier is associated with an alternative resource identifier as a function of request routing criteria associated with a content provider; and transmit an alternative resource identifier to the client computing device, wherein the alternative resource identifier includes information for causing a DNS query to resolve to a domain corresponding to the service provider; a second network point of presence associated with a service provider, wherein the second network point of presence includes a DNS server component that receives a subsequent DNS query from a client computing device, wherein the subsequent DNS query corresponds to a requested resource associated with the alternative resource identifier, and wherein the DNS server in the second network point of presence is operable: to resolve the subsequent DNS query to identify a cache component for providing content associated with the original resource request; and transmit information identifying the identified cache component to the client computing device.

DESCRIPTION OF THE DRAWINGS

[0005] The foregoing aspects and many of the attendant advantages of this invention will become more readily appreciated as the same become better understood by reference to the following detailed description, when taken in conjunction with the accompanying drawings, wherein:

[0006] FIGURE 1 is a block diagram illustrative of content delivery environment including a number of client computing devices, a content provider, a network storage provider, and a content delivery network service provider;

[0007] FIGURE 2 is a block diagram of the content delivery environment of FIGURE 1 illustrating the registration of a content provider with a network storage provider;

[0008] FIGURE 3 is a block diagram of the content delivery environment of FIGURE 1 illustrating the registration of a content provider with a network storage provider;

[0009] FIGURE 4A-4C are block diagrams of the content delivery environment of FIGURE 1 illustrating one embodiment of the processing of resource requests generated by client computing devices;

[0010] FIGURE 5 is a flow diagram illustrative of a content provider registration processing routine implemented by a service provider;

[0011] FIGURE 6 is a flow diagram illustrative of a request routing processing routine implemented by a service provider; and

[0012] FIGURE 7 is an illustrative user interface displaying information for use in registering request routing services with a service provider.

DETAILED DESCRIPTION

[0013] Generally described, the present disclosure is directed to managing requesting routing functionality associated with resource requests for one or more resources associated with

CLAIMS:

1. A computer-implemented method for managing request routing functionality comprising:
 - obtaining registration information at a service provider for registering one or more content providers with the service provider, the registration corresponding to hosting at least a portion of request routing functionality associated with one or more resources provided by the content provider;
 - obtaining identification of request routing information to be utilized by the service provider in processing and resolving DNS queries;
 - obtaining a DNS query from a client computing device at a first DNS server, wherein the DNS query corresponds to a requested resource associated with a resource identifier and wherein the first DNS server corresponds to the service provider; and
 - providing the client computing device with at least one of an identifier corresponding to a storage component for the requested resource based on supplemental request routing information not included in the resource request and an alternative resource identifier query to resolve to a domain corresponding to the service provider and the supplemental request routing information not included in the first resource identifier.
2. The method as recited in Claim 1, wherein the storage component corresponds to at least one of the content provider, the service provider and a network storage provider.
3. The method as recited in Claim 1 or Claim 2, wherein the request routing information comprises at least one of service level plan information and geographic selection information.
4. The method as recited in any one of the preceding Claims, wherein the request routing information comprises cost information associated with one or more storage components.
5. The method as recited in any one of the preceding Claims further comprising causing generation, by the service provider, of a user interface for registering the one or more domains associated with the content provider with the service provider.
6. The method as recited in any one of the preceding Claims, wherein the one or more resources correspond to at least one of:
 - one or more embedded resources; and
 - a domain associated with the content provider.

7. A system for request routing comprising:

an interface component for obtaining

registration information at a service provider for registering one or more content providers with the service provider, the registration corresponding to hosting at least a portion of request routing functionality associated with one or more resources provided by the content provider; and

identification of request routing information to be utilized by the service provider in processing and resolving DNS queries;

a first network point of presence associated with a service provider, wherein the first network point of presence includes a DNS server component that receives a DNS query from a client computing device, wherein the DNS query corresponds to a requested resource associated with a first resource identifier, and wherein the DNS server in the first network point of presence is operable to:

determine that the first resource identifier is associated with an alternative resource identifier as a function of request routing criteria associated with a content provider; and

transmit an alternative resource identifier to the client computing device, wherein the alternative resource identifier includes information for causing a DNS query to resolve to a domain corresponding to the service provider;

a second network point of presence associated with a service provider, wherein the second network point of presence includes a DNS server component that receives a subsequent DNS query from a client computing device, wherein the subsequent DNS query corresponds to a requested resource associated with the alternative resource identifier, and wherein the DNS server in the second network point of presence is operable to:

resolve the subsequent DNS query to identify a cache component for providing content associated with the original resource request; and

transmit information identifying the identified cache component to the client computing device.

8. The system as recited in Claim 7, wherein the first resource identifier includes at least a portion of the request routing criteria.

9. The system as recited in Claim 7 or Claim 8, wherein the DNS server in the first network point of presence is further operable to obtain at least a portion of the cost information.

10. The system as recited in any one of Claims 7 to 9, wherein the alternative resource identifier corresponds to a canonical name record identifier.

11. The system as recited in any one of Claims 7 to 10, wherein the request routing criteria includes regional service information and wherein the alternative resource identifier includes information identifying a regional service plan provided by the service provider.
12. The system as recited in any one of Claims 7 to 11, wherein information identifying the identified cache component to the client computing device includes a network address of a cache component associated with the content provider.
13. The system as recited in any one of Claims 7 to 12, wherein information identifying the identified cache component to the client computing device includes a network address of a cache component associated with a third party service provider.
14. The system as recited in any one of Claims 7 to 13, wherein the request routing criteria includes cost information and wherein the alternative resource identifier includes information identifying a cost plan provided by the service provider.
15. The system as recited in any one of Claims 7 to 14, wherein the request routing criteria includes network performance information and wherein the alternative resource identifier includes information identifying a network performance plan provided by the service provider.