

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, at a content distribution network (CDN), a pre-localization request from a service that is distinct from the CDN and uses the CDN to deliver content provided by the service, wherein the pre-localization request comprises pre-localization information and the pre-localization information comprises an indication of particular content stored by the CDN;
 - generating, based on the pre-localization information, a pre-localized hostname associated with an edge server of the CDN that is responsible for the particular content;
 - providing, in response to the pre-localization request, the pre-localized hostname for the edge server of the CDN;
 - receiving, from a client computing device, a request for the content at the edge server of the CDN; and
 - providing the content to the client computing device.
2. The system of claim 1, wherein:
 - the pre-localization information further comprises an indication of a geographic location for the client computing device; and
 - generating the pre-localized hostname comprises identifying a data center associated with the edge server based on the geographic location.
3. The system of claim 1 or 2, wherein generating the pre-localized hostname comprises:
 - evaluating a set of edge servers associated with the CDN to identify an edge server that is responsible for the particular content; and
 - generating the pre-localized hostname indicating the identified edge server.

4. The system of any one of claims 1 to 3, wherein generating the pre-localized hostname comprises:
 - generating a hash based on the particular content; and
 - identifying the edge server according to a hashing algorithm.
5. The system of any one of claims 1 to 4, wherein the pre-localized hostname is associated with at least the edge server of a first data center and a second edge server of a second data center.
6. The system of any one of claims 1 to 5, wherein the particular content comprises video content, and wherein the service comprises a website that lists the video content for playback.
7. The system of any one of claims 1 to 6, wherein the pre-localization information further comprises at least one of:
 - an IP address of the client computing device;
 - a geographic location of the client computing device;
 - one or more software of the client computing device;
 - one or more hardware capabilities of the client computing device;
 - a client computing device type; or
 - information relating to an initiation request.
8. A method for directing a client computing device to a content distribution network (CDN) using a pre-localized hostname, the method comprising:
 - receiving, at a service and from the client computing device, an initiation request relating to computing functionality provided by the CDN for the service, wherein the service is distinct from the CDN;
 - generating pre-localization information based at least in part on the initiation request and information about the client computing device;
 - determining, based on the pre-localization information, a pre-localized hostname associated with a particular edge server of the CDN, wherein the CDN includes a plurality of edge servers, and the particular edge server is responsible for the computing functionality; and

sending to the client computing device, by the service, a response to the initiation request comprising the pre-localized hostname, thereby directing the client computing device to the particular edge server of the CDN.

9. The method of claim 8, wherein determining the pre-localized hostname comprises:

- generating a pre-localization request comprising the pre-localization information;
- providing the pre-localization request to a pre-localization engine of the CDN; and
- receiving, in response to the pre-localization request, a response comprising the pre-localized hostname.

10. The method of claim 8 or 9, wherein determining the pre-localized hostname comprises evaluating a set of edge servers associated with the CDN to identify the particular edge server that is responsible for the computing functionality.

11. The method of any one of claims 8 to 10, wherein the pre-localized hostname is associated with at least the particular edge server of a first data center and a second edge server of a second data center.

12. The method of any one of claims 8 to 11, wherein the pre-localization information comprises at least one of:

- an indication of the computing functionality;
- an IP address of the client computing device;
- a geographic location of the client computing device;
- one or more software of the client computing device;
- one or more hardware capabilities of the client computing device;
- a client computing device type; or
- information relating to the initiation request.

13. The method of any one of claims 8 to 12, wherein the initiation request comprises the information about the client computing device.

14. A method for generating a pre-localized hostname, the method comprising:
receiving a pre-localization request comprising pre-localization information,
wherein the pre-localization information comprises an indication of computing
functionality associated with a content distribution network (CDN);
generating, based on the pre-localization information, a pre-localized hostname
associated with an edge server of the CDN that is responsible for the computing
functionality; and
providing, in response to the pre-localization request, the pre-localized hostname to
direct a client computing device to the edge server of the CDN.
15. The method of claim 14, wherein:
the pre-localization information further comprises an indication of a geographic
location for the client computing device; and
generating the pre-localized hostname comprises identifying a data center
associated with the edge server based on the geographic location.
16. The method of claim 14 or 15, wherein generating the pre-localized hostname
comprises:
evaluating a set of edge servers associated with the CDN to identify an edge server
that is responsible for the computing functionality; and
generating the pre-localized hostname indicating the identified edge server.
17. The method of any one of claims 14 to 16, wherein generating the pre-localized
hostname comprises:
generating a hash based on the indicated computing functionality; and
identifying the edge server according to a hashing algorithm.
18. The method of any one of claims 14 to 17, wherein the pre-localized hostname is
associated with at least the edge server of a first data center and a second edge server of a
second data center.

19. The method of any one of claims 14 to 17, wherein the pre-localization request is received from a service associated with the CDN, and wherein the pre-localization information further comprises information relating to an initiation request of the client computing device.

20. The method of any one of claims 14 to 18, wherein the pre-localization information further comprises at least one of:

- an IP address of the client computing device;
- a geographic location of the client computing device;
- one or more software of the client computing device;
- one or more hardware capabilities of the client computing device;
- a client computing device type; or
- information relating to an initiation request.