



- (51) International Patent Classification:
H04L 29/06 (2006.01) *H04L 29/08* (2006.01)
- (21) International Application Number:
PCT/US2021/018385
- (22) International Filing Date:
17 February 2021 (17.02.2021)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
62/985,050 04 March 2020 (04.03.2020) US
17/131,852 23 December 2020 (23.12.2020) US
- (71) Applicant: **LEVEL 3 COMMUNICATIONS, LLC**
[US/US]; 1025 Eldorado Boulevard, Broomfield, Colorado
80021 (US).
- (72) Inventor: **JOHNS, Kevin**; c/o Level 3 Communications,
LLC, 1025 Eldorado Boulevard, Broomfield, Colorado
80021 (US).
- (74) Agent: **BRUESS, Steven C.** et al.; Merchant & Gould
P.C., P.O. BOX 2903, Minneapolis, Minnesota 55402-0903
(US).
- (81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN,
KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO,
NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW,

(54) Title: HOSTNAME PRE-LOCALIZATION

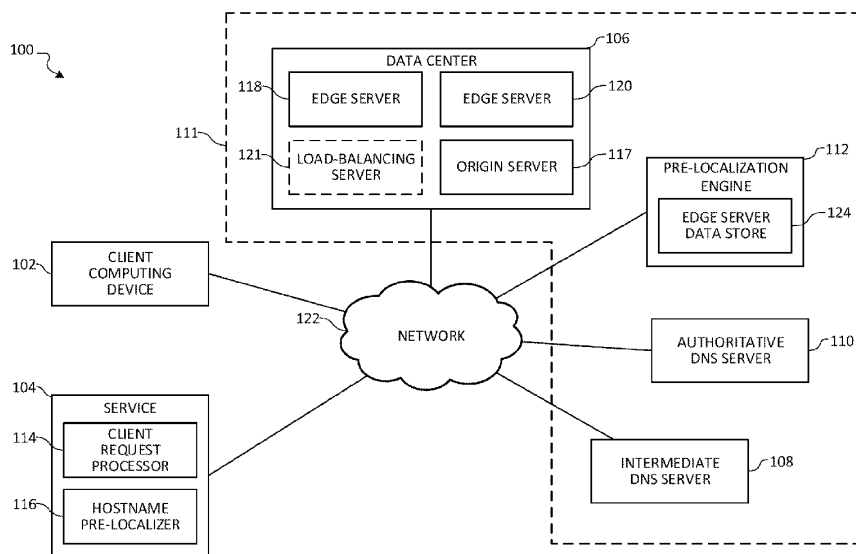


FIG. 1

(57) **Abstract:** Examples of the present disclosure relate to hostname pre-localization. In examples, a service uses a content distribution network (CDN) to provide at least a part of the computing functionality associated with the service. A pre-localized hostname may be used to direct the client computing device to a specific edge server of the CDN that is associated with the computing functionality. In examples, a service receives an initiation request from a client computing device for the computing functionality provided by the CDN. The service generates a pre-localization request comprising pre-localization information and provides the pre-localization request to the CDN. Accordingly, the CDN generates a pre-localized hostname associated with an edge server based on the pre-localization information. The pre-localized hostname is provided to the service, which is then provided to the client computing device, thereby directing the client computing device to the specific edge server of the CDN.

[Continued on next page]

SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))
