

(51) International Patent Classification:
H04L 12/931 (2013.01)(21) International Application Number:
PCT/US2015/023079(22) International Filing Date:
27 March 2015 (27.03.2015)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/973,650 1 April 2014 (01.04.2014) US
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(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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, 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, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, LI, 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).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR SOFTWARE DEFINED ROUTING OF TRAFFIC WITHIN AND BETWEEN AUTONOMOUS SYSTEMS WITH ENHANCED FLOW ROUTING, SCALABILITY AND SECURITY

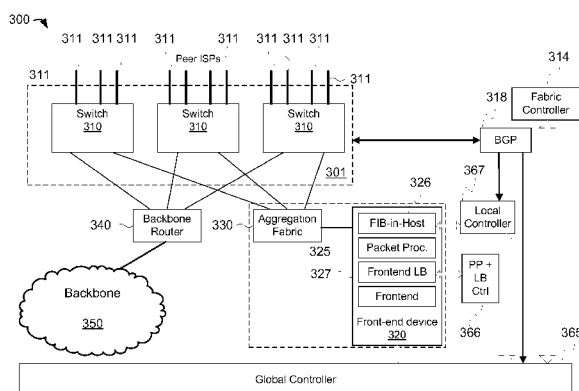


Figure 3

(57) Abstract: An autonomous network and a corresponding routing method include determining routing paths by a controller, and providing the determined routing paths to a data packet processor located remotely from the controller. The data packet processor routes outgoing data packets, based on information from the controller, through a plurality of switches remotely from the data packet processor. Each switch includes a plurality of network interfaces. For an outgoing data packet, the data packet processor determines a network interface over which to transmit the data packet, and adds an indication of the determined network interface in a header of the data packet. The data packet processor forwards the modified data packet to the switch including the determined network interface. The switch identifies the network interface based on the indication, and transmits the outgoing data packet over the identified network interface.

WO 2015/153361 A1



Published:

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