

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
31 October 2002 (31.10.2002)

PCT

(10) International Publication Number
WO 02/087136 A2

(51) International Patent Classification⁷: **H04L**
(21) International Application Number: PCT/US02/13182
(22) International Filing Date: 25 April 2002 (25.04.2002)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data:
60/286,595 25 April 2001 (25.04.2001) US
60/298,355 14 June 2001 (14.06.2001) US
60/308,280 26 July 2001 (26.07.2001) US
60/308,275 26 July 2001 (26.07.2001) US
10/128,941 24 April 2002 (24.04.2002) US

(81) Designated States (*national*): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(71) Applicant: **INFOTONE COMMUNICATIONS CORPORATION** [US/US]; 4053 Harlan, Suite 110, Emeryville, CA (US).
(72) Inventor: **MOON, Avery**; 1721 Bandoni Ave, San Lorenzo, CA 94580 (US).
(74) Agents: **GLENN, Michael** et al.; Glenn Patent Group, 3475 Edison Way, Suite L., Menlo Park, CA 94025 (US).

(54) Title: ADAPTIVE MULTI-PROTOCOL COMMUNICATIONS SYSTEM

(57) Abstract: An adaptive multi-protocol communications system provides a plurality of single computer interface cards connected to a common backplane or interconnect. Each interface card sends and receives bit streams of a specific application protocol, exchanging data between possibly differing application protocols. The interface card feeds the incoming binary stream into a finite state machine dedicated to converting a specific application protocol bit stream into a multi-dimensional matrix representation for a particular communication protocol, e.g., EDI/XML, or the invention's intermediate translation representation. The invention uses finite state machines to convert from the initial communication protocol bit stream to the invention's intermediate representation. A finite state machine on a receiving interface card is used to convert the incoming bit stream into an intermediate language multi-dimensional matrix and passes the matrix to a destination interface card which has a finite state machine used to convert the intermediate language multi-dimensional matrix to an application protocol bit stream. The application protocol bit stream is then sent to a receiving computer system.



WO 02/087136 A2