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- (71) **Applicant (for all designated States except US): DIGEO, INC.** [US/US]; 8815 122nd Avenue NE, Kirkland, WA 98033 (US).
- (72) **Inventor; and**
- (75) **Inventor/Applicant (for US only): FORD, James, O.** [US/US]; 17423 92nd Avenue NE, Bothell, WA 98011 (US).
- (74) **Agent: MORGAN, Kevan, L.;** Christensen O'connor Johnson Kindness PLLC, 1420 Fifth Avenue, Suite 2800, Seattle, WA 98101-2347 (US).
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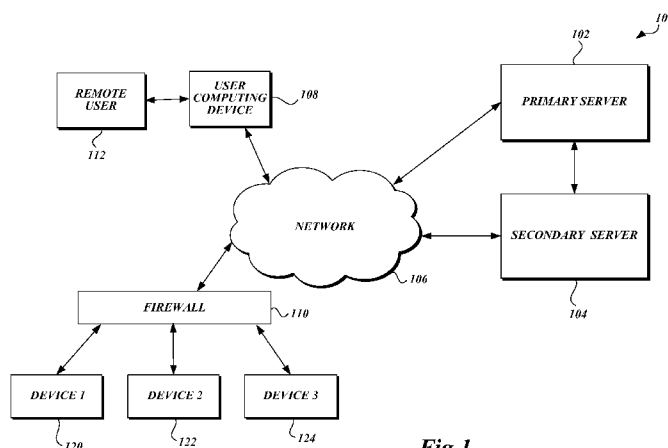


Fig. 1.

(57) **Abstract:** A highly scalable primary server is provided to serve an increasing number of users and remote devices. Instead of communicating with a primary server using an expensive communication protocol, a remote device communicates with a secondary server using a less expensive protocol to determine whether the primary server desires to communicate control instructions to the remote device. When the primary server has a request to control the remote device, the primary server creates a table entry to the secondary server to notify the remote device of a request to communicate. Upon polling the secondary server and learning of the created table entry, the remote device establishes a communication connection with the primary server to receive the instructions for controlling the remote device. In this manner, the demand for resources needed for communication with the primary server is significantly reduced.

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INTERNATIONAL SEARCH REPORT

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002/095600 A1 (DEEN BRIAN J [US] ET AL) 18 July 2002 (2002-07-18) paragraphs [0011] - [0016]	1-53
A	US 2002/103898 A1 (MOYER STANLEY L [US] ET AL) 1 August 2002 (2002-08-01) paragraphs [0027] - [0028]	1-53

 Further documents are listed in the continuation of Box C. See patent family annex.

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Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Veen, Gerardus

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002095600	A1	18-07-2002	NONE
US 2002103898	A1	01-08-2002	CA 2434520 A1 08-08-2002
		EP 1358560 A1	05-11-2003
		JP 2004523828 T	05-08-2004
		WO 02061589 A1	08-08-2002