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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/023288**A. CLASSIFICATION OF SUBJECT MATTER****H04L 12/56(2006.01)i, G06F 9/50(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H04L 12/56; G08C 15/00; G05B 19/418; H04L 12/26; H04J 3/16; H04L 12/28

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: bandwidth, allocation, weight, demand, and similar terms.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 7848234 B2 (MCKINNON, III MARTIN W. et al.) 07 December 2010	1,3-6,10-15
A	See column 10 lines 20-24, 28-32, column 20 lines 40-43 and column 22 lines 2-4, 27-33, 37-44.	2,7-9,16
A	US 2003-0081626 A1 (JOSEPH NAOR et al.) 01 May 2003 See paragraphs [0064]-[0072], figure 6 and claims 10, 12.	1-16
A	US 2009-0316578 A1 (MANG XIAOWEN et al.) 24 December 2009 See paragraphs [0068]-[0075], figure 4 and claims 1, 4, 9.	1-16
A	US 6324184 B1 (HOU; VICTOR T. et al.) 27 November 2001 See claims 1, 3 and figure 2.	1-16
A	US 2008-0103861 A1 (ZHONG ENCI) 01 May 2008 See paragraphs [0033]-[0048], figures 1, 5, 6 and claim 1.	1-16



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/023288

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