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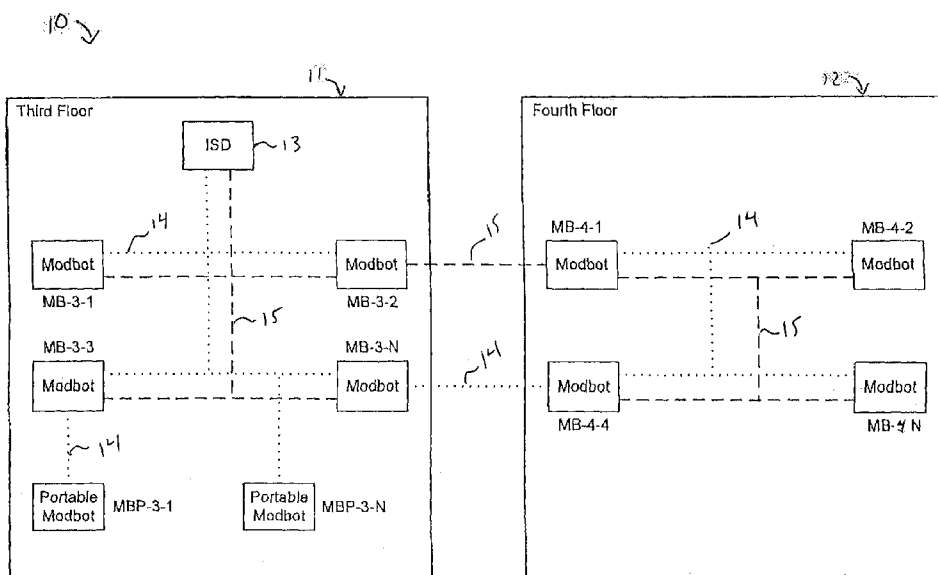
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(54) Title: MEDIUM TO DISPARATE MEDIUM HOPPING MESH NETWORK



(57) Abstract: A hopping mesh network is described that employs two or more disparate media to connect multiple intelligent devices into a network capable of passing high-speed data. Each intelligent device is able to select the most appropriate media based on the data to be used to transmit the media, and may switch data between disparate media as necessary during the transmission of the data. Each media is configured to contain multiple channels which are also used by the intelligent devices to transmit data on the network. A generic, protocol-neutral wrapper can also be used in the hopping mesh network to allow transmission of multiple protocols without the need for conversion between protocols.

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*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.*

## INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
 IPC: **H04L 12/28** (2006.01) , **H04L 12/46** (2006.01) , **H04L 29/04** (2006.01)  
 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)

IPC: **H04L** (2006.01)

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

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)  
 Canadian Patent Database, Delphion, Derwent, IEEE Xplore, West. Keywords: switching/hopping, media/medium/path/channel, between/from, disparate/diverse/different, networks, protocol, neutral, header, mesh.

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/0075814 A1 (Desai et al.) 20 June 2002 (20-06-2002) *abstract* *paragraphs [0009], [0071], [0087]-[0092], [0096]* *paragraphs [0098], [0100], [01040]-[0106], [0109]* *paragraphs [0160]-[0166], [0191]-[0194], [0201]* *paragraphs [0218]-[0220], [0391]-[0394]* *Figures 3-9, 45*	1-23
A	EP 1471705 A1 (Li et al.) 27 October 2004 (27-10-2004) *entire document*	1-23
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 Further documents are listed in the continuation of Box C. See patent family annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance	"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
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"O" document referring to an oral disclosure, use, exhibition or other means	
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	US 6058479 A (Sørhaug et al.) 2 May 2000 (02-05-2000) *entire document*	1-23
A	US 6516352 B1 (Booth et al.) 4 February 2003 (04-02-2003) *entire document*	1-23
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**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

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