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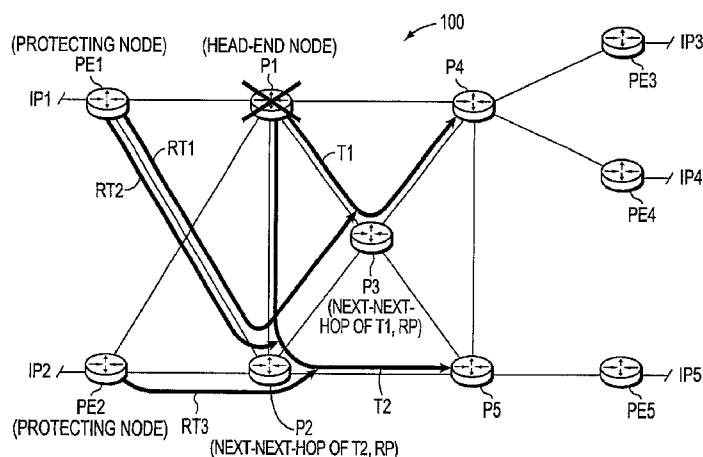
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(54) Title: DYNAMIC PROTECTION AGAINST FAILURE OF A HEAD-END NODE OF ONE OR MORE TE-LSPS



(57) Abstract: A technique dynamically protects against failure of a head-end node of one or more primary Traffic Engineering Label Switched Paths (TE-LSPs) in a computer net-work. According to the novel technique, a neighboring upstream node ("protecting node") of the head-end node learns of the primary TE-LSPs (and their respective state control blocks) extending from the head-end node to one or more address prefixes. The protecting node establishes a repair TE-LSP for each of the primary TE-LSPs to a corresponding downstream neighboring node of the head-end node (a "next-next-hop"). In response to detecting a failure of the head-end node, the protecting node locally reroutes traffic destined for the address prefixes to an appropriate repair TE-LSP. Due to the failure of the head-end node, the protecting node then refreshes the states of the primary TE-LSPs using replicated state control blocks accordingly, until the repair TE-LSPs are no longer needed.



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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G01R 31/08 (2007.01)

USPC - 370/221

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)

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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 practicable, search terms used)

MicroPatent (US, USPG-PUB, EPO, DERWENT), IP.com, DialogPro, IEEE and Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	VASSEUR et al, "Definition of an RRO node-id subobject," Network Working Group, November 2005 (11.2005) [Retrieved from <http://tools.ietf.org/id/draft-ietf-mpls-nodeid-subobject-07.txt>] entire document	1-10, 19 -22 ----- 11 - 18
Y	US 2003/0210705 A1(SEDDIGH et al) 13 November 2003 (13.11.2003) entire document	11 - 18

☐ Further documents are listed in the continuation of Box C.

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

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

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