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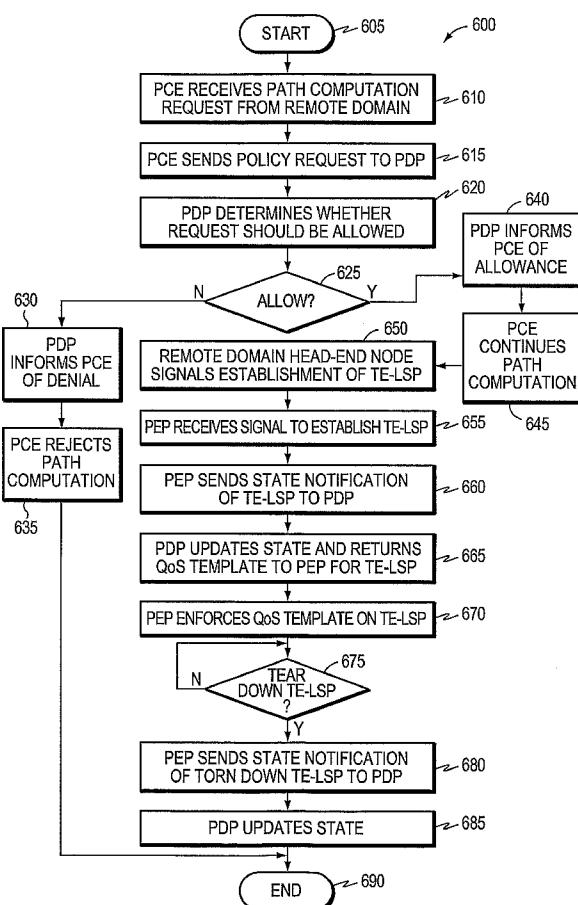
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(54) Title: DYNAMIC ENFORCEMENT OF MPLS-TE INTER-DOMAIN POLICY AND QOS



(57) **Abstract:** A technique dynamically enforces inter-domain policy and quality of service (QoS) for Traffic Engineering (TE) Label Switched Paths (LSPs) between a local domain and a remote domain in a computer network. According to the enforcement technique, a Path Computation Element (PCE) of the local domain receives a path computation request for an inter-domain TE-LSP from the remote domain, and triggers a policy verification procedure at a Policy Decision Point (PDP) of the local domain. The PDP determines whether the requested TE-LSP is allowed based on configured policy for the remote domain and previously established TE-LSPs from the remote domain. In the event the requested TE-LSP is allowed and subsequently established, a Policy Enforcement Point (PEP) along the TE-LSP, e.g., a border router of the local domain or a dedicated server, updates the PDP with the state of the TE-LSP. In response to the update, the PDP returns a QoS template indicating configured QoS guidelines the PEP must enforce for that TE-LSP. If the TE-LSP is eventually torn down, the PEP again updates the PDP with the state of the TE-LSP.

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- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

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A. CLASSIFICATION OF SUBJECT MATTER

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USPC: 370/395.21

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)

USPC: 370/395.21

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 370/395, 408, 351, 352, 227, 229, 231
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

USPTO WEST (PGPB,USPT,USOC,EPAB,JPAB), DialogPRO (Engineering)

Search terms used: multilabel protocol switching or MPLS, quality of service or QoS, traffic engineering or TE,LSP,TE-LSP,PDP,PEP,policy verification request,disconnect,tear down,constraints

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/0228147 A1 (BRAHIM) 11 December 2003 (11.12.2003) entire document	1-3, 5-16, 18
Y		4, 17
Y	US 6,714,987 B1 (AMIN et al.) 30 March 2004 (30.03.2004) col. 3, ln 1-55	4
Y	US 6,878,264 B1 (GIBSON) 13 January 2004 (13.01.2004) col 3 ln 44-45	17

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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