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(54) Title: SYSTEM AND METHOD OF VIRTUALLY CONCATENATING VT1.5s ANS STS-1s OVER SONET AND SDH AND WDM

(57) Abstract: A system and method of virtually concatenating VT1.5s and STS-1s over SONET and SDH and WDM is provided. In an exemplary embodiment, the system and method includes (1) creating a nxSTS-1 virtually concatenated pipe out of STS-1s, (2) within the nxSTS-1 pipe, forming one or more nxVT pipes out of VTs, and (3) mapping an application to a nxVT pipe or a nxSTS-1 pipe based upon a service level agreement. In the system and method, the creating includes (a) terminating SONET framing, (b) processing pointers, and (c) compensating for delay, thereby aligning the STS-1s in the nxSTS-1 virtually concatenated pipe. In the system and method, the forming includes (a) processing VT overhead of the VTs and (b) mapping traffic to nxVT pipes or nxSTS-1 pipes according to a connection identification.

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A. CLASSIFICATION OF SUBJECT MATTER				
IPC(7) : H04J 14/00				
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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) U.S. : 370/465,466,532,537,538,539,907				
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) IEEE "sts", "vt"				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
A	US 6,011,802 A (NORMAN) 04 January 2000 (04.01.2000), figure 3, column 6, lines 1-12.	1 and 7		
A	US 6,044,088 A (RAHMAN ET AL.) 28 March 2000 (28.03.2000), column 9, lines 54-63.	1 and 7		
A	US 6,049,550 A (BAYDAR ET AL.) 11 April 2000 (11.04.2000), figure 7, column 14, lines 54-67 and column 15, lines 1-10.	3 and 4		
A,P	US 6,118,795 A (FUKUNAGA ET AL.) 12 September 2000 (12.09.2000), figure 2, column 13, lines 24-46.	2 and 3		
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.				
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> * 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 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 another 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 </td> <td style="width: 50%; border: none;"> "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 </td> </tr> </table>			* 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 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 another 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
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