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Declarations under Rule 4.17:

[Continued on next page]

(54) Title: SECURE NODE IDENTIFIER ASSIGNMENT IN A DISTRIBUTED HASH TABLE FOR PEER-TO-PEER NETWORKS

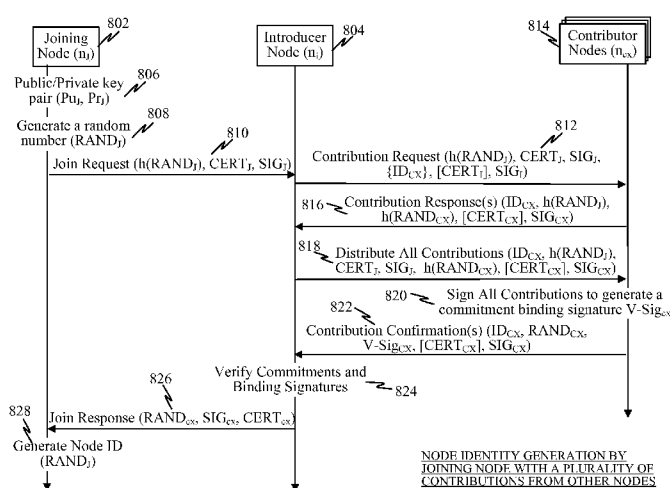


FIGURE 8

(57) Abstract: A multi-party commitment method is provided whereby a joining node uses contributions provided by contributor nodes in a peer-to-peer overlay network to generate a node identifier. The joining node generates a first contribution and sends a join request to an introducer node (or a plurality of contributor nodes), where the join request seeks to obtain one or more contributions for generating the node identifier within an identifier space of the overlay network. A hash of the first contribution may be included as part of the join request. In response, the joining node may receive a plurality of contributions, wherein the contributions are bound to each other and the first contribution by a prior external multi-node commitment operation. The joining node can then generate its node identifier as a function of the first contribution and the received contributions. Consequently, collusion between nodes and malicious manipulation during ID generation can be frustrated.



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- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))* — *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

INV. H04L29/06 H04L29/12
ADD.

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

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 practical, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2008/137663 A1 (GU JA BEOM [KR] ET AL) 12 June 2008 (2008-06-12) paragraph [0012]	1-64
A	WO 2008/102195 A1 (ERICSSON TELEFON AB L M [SE]; AGUNDEZ DOMINGUEZ JOSE LUIS [ES]; RENERO) 28 August 2008 (2008-08-28) page 1 page 7, lines 13-27	1-64
A	EP 1 655 928 A1 (HITACHI LTD [JP]) 10 May 2006 (2006-05-10) paragraph [0011]	1-64



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2008137663 A1	12-06-2008	NONE	
WO 2008102195 A1	28-08-2008	EP 2122966 A1 JP 2010519630 T	25-11-2009 03-06-2010
EP 1655928 A1	10-05-2006	NONE	