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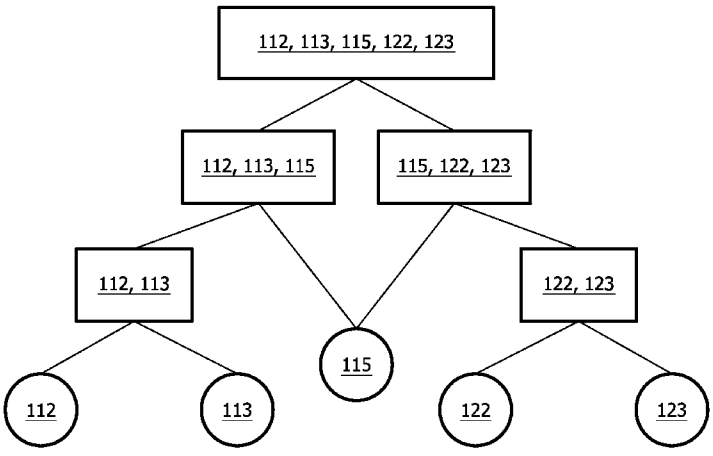
(54) Title: METHOD OF KEY MANAGEMENT



(57) Abstract: A method of key management for group-based controlled access to encrypted data, in which a decryption key for the encrypted data can be obtained by a party if the party is a member of at least one group which is authorized to access the data, the groups being organized in a hierarchical tree in which each non-leaf node represents a group and each leaf node represents a member of all groups represented by nodes hierarchically superior to the leaf node in question, characterized in that the leaf nodes are each assigned a respective arbitrarily chosen private key and corresponding public key, in that the private key associated with a particular non-leaf node is obtained by executing a key agreement protocol using a private key associated with a first child of the particular non- leaf node and a public key associated with a second child of the particular non-leaf node, and in that the private key for a group associated with a particular node is obtained by recursively obtaining the group private keys of the nodes on a path from the leaf node corresponding to the party in question and the node corresponding to the authorized group.

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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)
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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 practical, search terms used)
EPO-Internal, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	DE 198 47 941 A1 (DEUTSCHE TELEKOM AG [DE]) 13 April 2000 (2000-04-13) abstract page 3, line 12 - page 4, line 45 figures 1-5	1,2,8,9 3-7
Y	EP 1 505 594 A (SONY UK LTD [GB]) 9 February 2005 (2005-02-09) abstract paragraph [0029] - paragraph [0032] figures 5-8	3,5,6
Y	US 2006/015514 A1 (SUGA YUJI [JP]) 19 January 2006 (2006-01-19) abstract paragraph [0017] paragraph [0023]	4

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

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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.
Y	US 2004/146015 A1 (CROSS DAVID B [US] ET AL) 29 July 2004 (2004-07-29) abstract paragraph [0006]	7

INTERNATIONAL SEARCH REPORT

Information on patent family members

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