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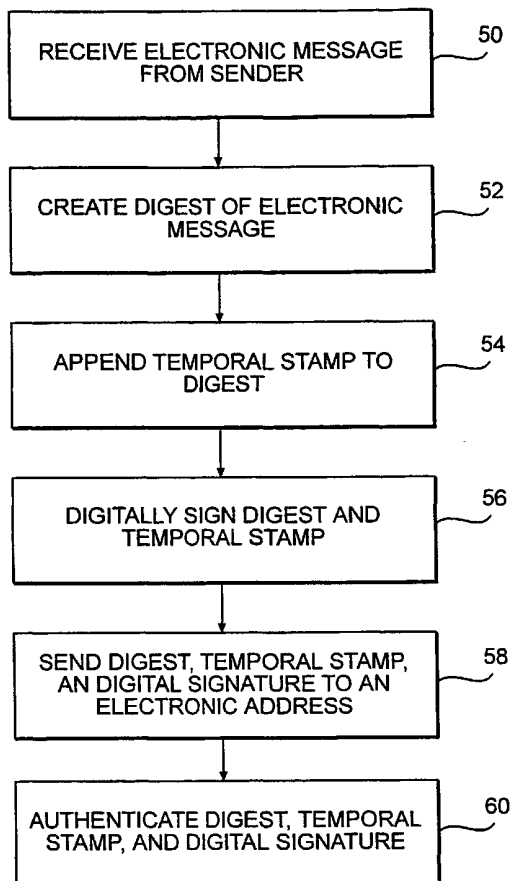
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(54) Title: SYSTEMS AND METHODS FOR AUTHENTICATING AN ELECTRONIC MESSAGE



(57) Abstract: Systems and methods are disclosed for authenti-  
cating electronic messages. A data structure is generated by a com-  
puter server which allows for the authentication of the contents and  
computer server identity of a received electronic message and pro-  
vides a trusted stamp to authenticate when the message was sent.  
Data which can authenticate the message, the computer server iden-  
tity, and the time the message was sent is included into a data struc-  
ture which is called an Electronic PostMark (EPM).



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# INTERNATIONAL SEARCH REPORT

International Application No

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**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 H04L9/32 H04L29/06

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)

IPC 7 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)

EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 00 13368 A (BORGERS FREDERICK J) 9 March 2000 (2000-03-09) abstract	1, 16, 20
X A	US 5 638 446 A (RUBIN AVIEL D) 10 June 1997 (1997-06-10) abstract  column 1, line 63 -column 2, line 26	1, 10, 16, 20 2-9, 11-15, 17-19, 21-45
X A	EP 0 516 898 A (PITNEY BOWES) 9 December 1992 (1992-12-09) the whole document	1, 10, 16, 20 2-9, 11-15, 17-19, 21-45
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Patent family members are listed in annex.

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Date of the actual completion of the international search

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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.
A	WO 97 12460 A (DOCUMENT AUTHENTICATION SYSTEM) 3 April 1997 (1997-04-03) page 4, line 8 -page 6, line 17 -----	1-45

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report	A	Publication date	Patent family member(s)	Publication date
WO 0013368	A	09-03-2000	NONE	
<hr/>				
US 5638446	A	10-06-1997	NONE	
<hr/>				
EP 0516898	A	09-12-1992	CA 2043533 A,C	01-12-1992
			JP 6014018 A	21-01-1994
			US 5022080 A	04-06-1991
<hr/>				
WO 9712460	A	03-04-1997	US 5748738 A	05-05-1998
			AU 714220 B	23-12-1999
			AU 7105896 A	17-04-1997
			BR 9610720 A	21-12-1999
			CA 2232170 A	03-04-1997
			CN 1202288 A	16-12-1998
			CZ 9800787 A	14-10-1998
			EP 0850523 A	01-07-1998
			HU 9802232 A	28-01-1999
			JP 11512841 T	02-11-1999
			NO 981170 A	13-05-1998
			NZ 318941 A	29-07-1999
			PL 326075 A	17-08-1998
			TR 9800462 T	22-06-1998
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