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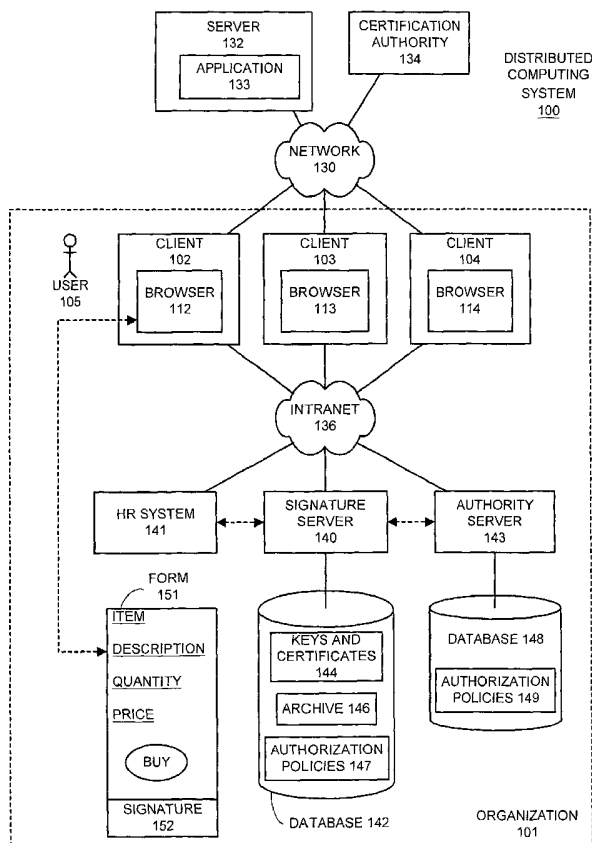
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(54) Title: METHOD AND APPARTUS FOR DELEGATING DIGITAL SIGNATURES TO A SIGNATURE SERVER



(57) Abstract: One embodiment of the present invention provides a system that facilitates delegating operations involved in providing digital signatures to a signature server. The system operates by receiving a request for a digital signature from a user at the signature server, wherein the request includes an item to be signed on behalf of the user by the signature server. In response to the request, the system looks up a private key for the user at the signature server, and signs the item with the private key. Next, the system returns the signed item to the user, so that the user can send the signed item to the recipient. In one embodiment of the present invention, the system authenticates the user prior to signing the item. In one embodiment of the present invention, the system determines whether the user is authorized to sign the item prior to signing the item.



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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 030 282 A (CADIX INC) 23 August 2000 (2000-08-23) abstract; figure 1 paragraphs '0013!', '0015!', '0017!', '0025!', '0027!', '0079!', '0082!', '0087!' -----	1-33
X	EP 0 803 789 A (EUROP COMPUTER IND RES) 29 October 1997 (1997-10-29) abstract; figure 2 column 6, line 34 - line 42 -----	1, 12, 23
A	WO 97 50205 A (INTEL CORP) 31 December 1997 (1997-12-31) abstract; figure 6 page 5, paragraph 3 -----	1-33

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
EP 1030282	A	23-08-2000	JP 11088321 A	30-03-1999
			JP 11088322 A	30-03-1999
			AU 742717 B2	10-01-2002
			AU 8888398 A	22-03-1999
			BR 9811737 A	20-11-2001
			CA 2302200 A1	11-03-1999
			EP 1030282 A1	23-08-2000
			CN 1272934 T	08-11-2000
			WO 9912144 A1	11-03-1999
EP 0803789	A	29-10-1997	AU 716912 B2	09-03-2000
			AU 1912097 A	30-10-1997
			EP 0803789 A2	29-10-1997
			US 5935246 A	10-08-1999
WO 9750205	A	31-12-1997	US 6219423 B1	17-04-2001
			AU 3391697 A	14-01-1998
			BR 9710055 A	10-08-1999
			CN 1268264 A	27-09-2000
			DE 19781841 C2	07-03-2002
			DE 19781841 T0	01-07-1999
			GB 2329807 A	31-03-1999
			KR 2000022249 A	25-04-2000
			WO 9750205 A1	31-12-1997