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(54) Title: SYSTEM AND METHOD OF SECURE AUTHENTICATION AND BILLING FOR GOODS AND SERVICES USING A CELLULAR TELECOMMUNICATION AND AN AUTHORIZATION INFRASTRUCTURE

(57) Abstract: A system, method and computer program for authorizing a mobile station to use a product, service, access or other rights provided by a service provider through the use of digital signatures.. These digital signatures are based on a shared signing key, and can be verified using a signature verification service. This system, method and computer program will validate the identity of the mobile station being used utilizing long term keys stored in the mobile station and an authentication center. The system, method and computer program will then utilize the signing key and the signature verification service to verify digital signatures that enable the authorization to access products, services, access or other rights using a mobile station. When this system, method and computer program is used for authorizing payment transactions, the gateway will verify the authenticity of any charges made based on the signatures received. Thus, a user of this system, method and computer program can purchase goods and services without fear of fraud or errors.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB03/01777

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : IPC(7): G06F 17/60
 US CL : 705/50, 51, 52, 67, 72, 77, 79.

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. : 705/50, 51, 52, 67, 72, 77, 79.

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,003,135 A (BIALICK et al) 14 December 1999 (14.12.1999). Abstract, Summary of the Invention, Figures 3A-B, 5, 7A-B, 9A-B, associated text.	1-24
Y	US 6,081,518 A (BOWMAN-AMUAH) 27 June 2000 (27.06.2000), Abstract, Summary of the Invention, Figures 1A-H, associated text, claims 1-6.	1-24

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:		"T"
"A"	document defining the general state of the art which is not considered to be of particular relevance	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
"E"	earlier application or patent published on or after the international filing date	"X"
"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)	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
"O"	document referring to an oral disclosure, use, exhibition or other means	"Y"
"P"	document published prior to the international filing date but later than the priority date claimed	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

Date of the actual completion of the international search	Date of mailing of the international search report
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230	Authorized officer <i>for</i> James P Trammell <i>P. Wogye</i> Telephone No. 703-308-1113