

(19) World Intellectual Property  
Organization  
International Bureau



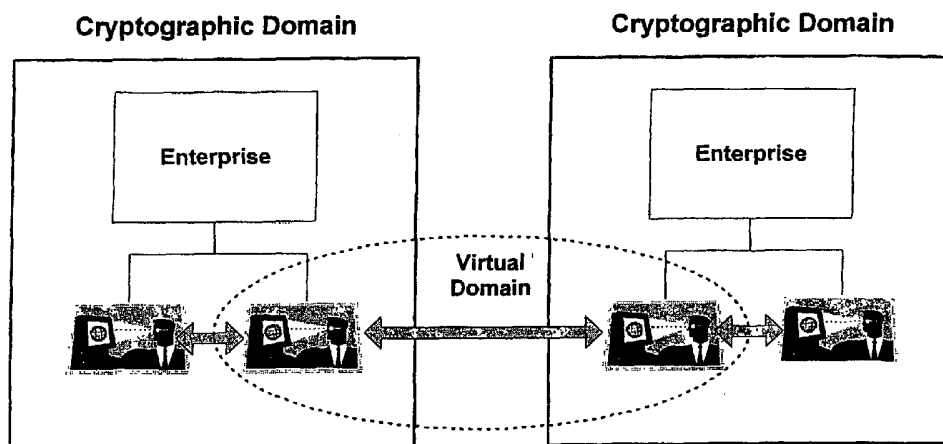
(43) International Publication Date  
4 November 2004 (04.11.2004)

PCT

(10) International Publication Number  
**WO 2004/095754 A3**

- (51) International Patent Classification<sup>7</sup>: **H04L 9/08**
- (21) International Application Number:  
PCT/US2004/011756
- (22) International Filing Date: 16 April 2004 (16.04.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
10/418,312 17 April 2003 (17.04.2003) US
- (71) Applicant (for all designated States except US): **TEC-SEC, INCORPORATED** [US/US]; Suite 220, 1953 Gallows Road, Vienna, VA 22182 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **SCHEIDT, Edward, M.** [US/US]; 1953 Gallows Road, Suite 220, Vienna, VA 22182 (US). **WACK, C., Jay** [US/US]; 1953 Gallows Road, Suite 220, Vienna, VA 22182 (US).
- (74) Agent: **CHAMPAGNE, Thomas, M.**; IP Strategies, P.C., 12 1/2 Wall Street, Suite I, Asheville, NC 28801 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:  
— with international search report
- (88) Date of publication of the international search report:  
3 March 2005
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SERVER-BASED CRYPTOGRAPHY



(57) Abstract: A system for securing data includes a set of descriptors associated with data, a node, and a server. The set of descriptors include a first group of descriptors, and at least one additional descriptor. Each descriptor has a respective, associated value. The node provides a first component by binding together the respective values of each of the first group of descriptors. The server receives the first component from the node, provides a key by binding together the first component and the respective values of each of the additional descriptor, and encrypts the data with the key. The user (via a token) and/or the server can provide at least one of the descriptors. At least one server can establish a trusted cryptographic virtual domain that exhibits an established trust based on the descriptors that are policy enforced.

WO 2004/095754 A3

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/11756

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(7) : H04L 9/08 US CL : 380/010 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 380/010 713/156,169,161,171,172,173,175,182,185,200-201;709/223-226,229 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) Please See Continuation Sheet		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	US 6,714,921 B2 (Stefik et al.) 30 March 2004, see the entire document.	1-21
A	US 5,590,199 A (Krajewski, Jr. et al.) 31 December 1996.	1-21
A	US 5,347,580 A (Molva et al.) 13 September 1994.	1-21
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents:		
"A"	document defining the general state of the art which is not considered to be of particular relevance	"T" 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" 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
"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)	"Y" 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
"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed	
Date of the actual completion of the international search	Date of mailing of the international search report	
14 October 2004 (14.10.2004)	<b>03 DEC 2004</b>	
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 VINCENT TRANS <i>Vincent R. Matthews</i> Telephone No. (571) 272-3613	

**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/US04/11756

Continuation of B. FIELDS SEARCHED Item 3:  
USPT;  
server,node,smart,card,descriptor,working,key,encrypt,decrypt,token,descriptor