U.S. Department of Commerce FORM PTO-1619A AUG 2 4 1893 Expires 06/30/99 OMB 0651-0027 and Trademark Office 09-08-1998 **PATENT** MRD 8-34-98 RECORDATION F. 100811792 PATENTS ONLY TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies). Submission Type Conveyance Type New New **Assignment Security Agreement** Resubmission (Non-Recordation) License Change of Name Document ID# Correction of PTO Error Other Merger Reel # Frame # U.S. Government Corrective Document (For Use ONLY by U.S. Government Agencies) Reel# Frame # **Departmental File** Secret File Conveying Party(ies) Mark if additional names of conveying parties attached Execution Date Month Day Year Name (line 1) POBERT W. REITER 08 1998 11 Name (line 2) Execution Date Month Day Year Second Party SOUNAS JENOME Name (line 1) 80 11 1998 Name (line 2) **Receiving Party** Mark if additional names of receiving parties attached If document to be recorded Name (line 1) GOVERNMENT OF THE WITED STATES OF AMERICA AS is an assignment and the receiving party is not Name (line 2) LEPRESENTED BY THE NATIONAL SECURITY AGENCY, THE domiciled in the United States, an appointment of a domestic Address (line 1) NATIONAL SECURITY representative is attached. (Designation must be a separate document from Address (line 2) SPE 6542 ROAD 9800 SAVAGE Assignment.) 20755-6542 Address (line 3) FT. MEADE MD/USA **Domestic Representative Name and Address** Enter for the first Receiving Party only. Name PATENT COUNSEL. MATIONAL SECURITY AGENCY 09/61/19dress/11201) C#68 iress (line 240.00 42) 6542 ROAD SAUM6E 20755-6542 Address (line 3) FT. MEADE MD Address (line 4) FOR OFFICE USE ONLY

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SIGNMENT (Government	Employee)
	ENTION: ELLIPTIC CURVE CRYPTOGRAPHIC KEY EXCHANGE USING
	AN-4DIC EXPANSION IN NON-ADTACENT FORM
INVENTORS:	D. KEITER, JEROME A. SOLIWAS

We, the undersigned inventors, in consideration of the rights of the Government of the United States acquired by virtue of the circumstances under which the above-identified invention was made, hereby:

- 1. Assign to the Government of the United States, as represented by the Director, National Security Agency, the entire right, title, and interest throughout the world in and to the above-entitled invention and application for patent and all Letters Patent issuing thereon, and any continuation, continuation-in-part or division of said application and any reissue or extension of said Letters Patent.
- 2. Agree to provide any further information within our knowledge and to execute any further documents necessary to the prosecution of patent applications on the invention, the prosecution and settlement of the interferences and recording of title to patent applications and patents.

INVENTOR:	Robert	ω .	Reiter			
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(St	ate) Wood	bing	MO			
DATE: 8//	1/98					
SIGNATURE:	Roy	2/	15			

INVENTOR: Dearne A.	Sounds		
ADDRESS: (City) 10 cry 2	1001762	(County)	CARROLL
(State) MARTIC			
DATE: 5/11/98			
SIGNATURE:	2 him		
State of MARYLAND County of ANNI ARMADIC)))		
On // Aug., T 1998 individuals described in instrument duly appeared they executed the same as	before me a	and acknow	ledged to me that
	(Signature)	2 Huchest	
(SEAL)	Notary Publ	ic of ANN	· ARBADEL, MARTINOS
	My Commissi	on Expire	s / NOU 2001

RECORDED: 08/24/1998