Mail Stop: Assignment Recordation Services Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450		RECORDATION FORM COVER SHEET PATENTS ONLY Atto			U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office  orney Docket No. 146133			
Plea	Please record the attached document.							
Total number of pages including cover sheet, attachments, and document: 5								
1.	A. Name of conveying parties: 1) Simon Robert WISEMAN 2) Brian Sinclair LOWANS B. Additional name(s) of conveying		2. A	QINET 85 BU	I address of receiving parties: IQ LIMITED CKINGHAM GATE ON SW1E 6PD UNTIED KINGDOM			
3.	A. Nature of conveyance:		В	. Additions	al name(s) & address(cs) attached? □Yes ⊠ No			
	■ Assignment       □	Merger						
	Security Agreement	Change of Name						
	☐ Other							
	B. Execution Date: 1) July 15, 2 2) July 16, 2010	010						
4.	A. Patent Application No.(s) 12/86	<u>i3.483</u>	В	. Patent No	p.(s)			
	Additional numbers attached? 🔲 Yes 🗵 No							
	C. Title of Application: <u>NETW</u>	ORK HAVING QUAN	TUM_K	EY DISTE	RIBUTION			
5.	Name and address of party to whom concerning document should be maile	orrespondence d:	6. T	otal number (	of applications and patents involved: 1			
	Name: James A. Oliff		7.		arge Deposit Account No. 15-0461 the 37 CFR 3.41) in the amount of \$40.00.			
	Address: OLIFF & BERRIDGE P.O. Box 320856 Alexandria, VA 2232 Phone Number: 703-836 Fax Number: 703-836	) 0-4850 36-6400			rpayment or charge any underpayment to it number 15-0461.			
9.	Statement and signature.  To the best of my knowledge and better the foregoing information is true and correct and any attached copy is a true copy of the original document.  Date: August 5, 2010  James A. Oliff Registration No. 27,075  Robert G. Bachner Registration No. 60,122							

PATENT

700443000 REEL: 024793 FRAME: 0677

#### IP/P7623/USW

## DEED OF ASSIGNMENT OF PATENT APPLICATION

#### BY AND SETWEEN

(Inventors) Dr Simon Robert WISEMAN

Dr Brian Sinclair LOWANS and

(Assignee)

QINETIQ LIMITED

(Address)

Company No. 3796233, whose Registered Office is at 85 Buckingham Gate, London

SW1E 6PD United Kingdom (hereinafter referred to as "the Assignee")

#### THIS DEED NOW WITNESSES

In accordance with their contract(s) of employment, and to the extent that it may be required to perfect the Assignee's ownership of the invention under the laws of any territory of the world, the undersigned hereby assign(s) to the Assignee the undersigned's entire right, title, and interest throughout the world – including in particular for the United States, its territories, dependencies, and possessions – in the invention identified in the Assignee's records as:

Network having Quantum Key Distribution

(Case No. P7623/USW)

and in all applications for patents therefor and in all patents which may be granted therefor, for which the undersigned has (have) executed on even date herewith an application for a patent in the United States of America or an International application for a patent designating the United States of America, or if not on even date, then has executed on \_\_\_\_\_\_or has already filed in \_\_\_\_\_\_(Application Serial No. US/12/863,483) or PCT/GB GB2009/ 000186 filed on 23-Jan-2009)

The undersigned acknowledge(s) an obligation of assignment of this invention to the Assignee at the time the invention was made.

The undersigned agree(s) to execute all papers and documents necessary in connection with the application or any interference which may be declared and any continuing or divisional applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient and further to perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

The undersigned hereby authorize(s) and request(s) the United States Commissioner of Patents to issue any and all Letters Patent of the United States resulting from said application or any division or divisions or continuing applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed and will not execute, any agreement in conflict herewith.

258050

PATENT REEL: 024793 FRAME: 0678 The undersigned hereby grant(s) the firm of:

Oliff & Berridge, 277 South Washington Street, Suite 500, Alexandria, Virginia 22314 United States of America

the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

EXECUTED AS A DEED by the undersigned on the date(s) opposite the undersigned signature(s).

Signature of Inventor		Date	
	Dr Simon Robert WISEMAN	•	-
Witnessed by		Date .	
Signature of Inventor	B.S. Lowers	Date	16th July 2010
	Dr Briag Sinclair LOWANS	-	
Witnessed by	<u></u>	Date	16th Luly 2010
	The Second		0

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### IP/P7623/USW

# DEED OF ASSIGNMENT OF PATENT APPLICATION

#### BY AND BETWEEN

(Inventors) Dr Simon Robert WISEMAN

Dr Brian Sinclair LOWANS and

(Assignee) QINETIQ LIMITED

(Address) Company No. 3796233, whose Registered Office is at 85 Buckingham Gate, London

SW1E 6PD United Kingdom (hereinafter referred to as "the Assignee")

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Network having Quantum Key Distribution

(Case No. P7623/USW)

and in all applications for patents therefor and in all patents which may be granted therefor, for which the undersigned has (have) executed on even date herewith an application for a patent in the United States of America or an International application for a patent designating the United States of America, or if not on even date, then has executed on \_\_\_\_\_\_ or has already filed in \_\_\_\_\_\_ (Application Serial No. US/ 12/863.483 or PCT/GB GB2009/ 000186 filed on 23-Jan-2009)

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EXECUTED AS A DEED by the undersigned on the date(s) opposite the undersigned signature(s).

Signature of Inventor	San-	Date	15th July 2010
	Dr Simon Robert WISEMAN		
Witnessed by	-3Rhand	Date _	15th July 260(0)
			Ü
Signature of Inventor		Date	
	Dr Brian Sinclair LOWANS	-	
Witnessed by		Date	