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(54) **METHOD AND SYSTEM FOR SENDING A MESSAGE THROUGH A SECURE CONNECTION**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

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(Continued)

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(51) **Int. Cl.**
H04L 9/32	(2006.01)
G06F 15/16	(2006.01)
H04L 29/06	(2006.01)
H04L 9/08	(2006.01)
H04L 29/12	(2006.01)

(52) **U.S. Cl.**
CPC *H04L 63/0281* (2013.01); *H04L 9/0841* (2013.01); *H04L 61/256* (2013.01); *H04L 63/0428* (2013.01); *H04L 63/123* (2013.01)

(58) **Field of Classification Search**
USPC 709/236, 239, 245
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

|				
6,718,388 B1 *	4/2004	Yarborough	....	H04L 63/0227 709/217
6,732,269 B1 *	5/2004	Baskey	....	H04L 63/166 713/153

(Continued)

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(57) **ABSTRACT**

The method and system enable secure forwarding of a message from a first computer to a second computer via an intermediate computer in a telecommunication network. A message is formed in the first computer or in a computer that is served by the first computer, and in the latter case, sending the message to the first computer. In the first computer, a secure message is then formed by giving the message a unique identity and a destination address. The message is sent from the first computer to the intermediate computer after which the destination address and the unique identity are used to find an address to the second computer. The current destination address is substituted with the found address to the second computer, and the unique identity is substituted with another unique identity. Then the message is forwarded to the second computer.

11 Claims, 6 Drawing Sheets
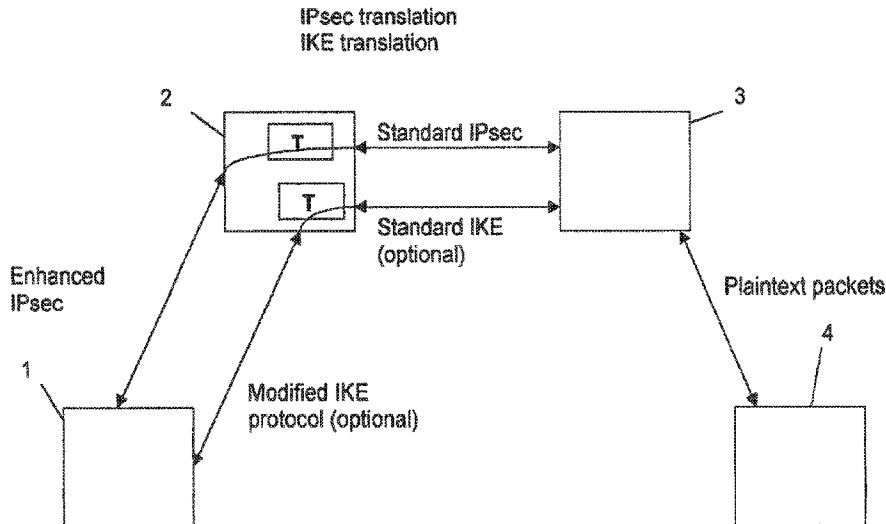
Related U.S. Application Data

No. 10/500,930, filed as application No. PCT/FI03/00045 on Jan. 21, 2003, now Pat. No. 8,346,949.

(56)   **References Cited**

U.S. PATENT DOCUMENTS

6,795,917	B1 *	9/2004	Ylonen	H04L 29/06
				713/160
6,957,346	B1 *	10/2005	Kivinen	H04L 12/4633
				713/153
6,985,953	B1 *	1/2006	Sandhu	G06F 17/3089
				709/225
7,055,027	B1 *	5/2006	Gunter	H04L 63/30
				709/223
2001/0047487	A1 *	11/2001	Linnakangas	H04L 63/0428
				726/12
2002/0004900	A1 *	1/2002	Patel	G06Q 30/02
				713/155
2002/0091921	A1 *	7/2002	Kunzinger	H04L 63/0428
				713/153

* cited by examiner

IPsec translation
IKE translation

2

Standard IPsec

3

T

T

Standard IKE
(optional)

Enhanced
IPsec

Plaintext pac

1

4

Modified IKE
protocol (optional)

FIG. 1

First computer   Intermediate comp.   Second computer   HOST X

1

2

3

4

5

6
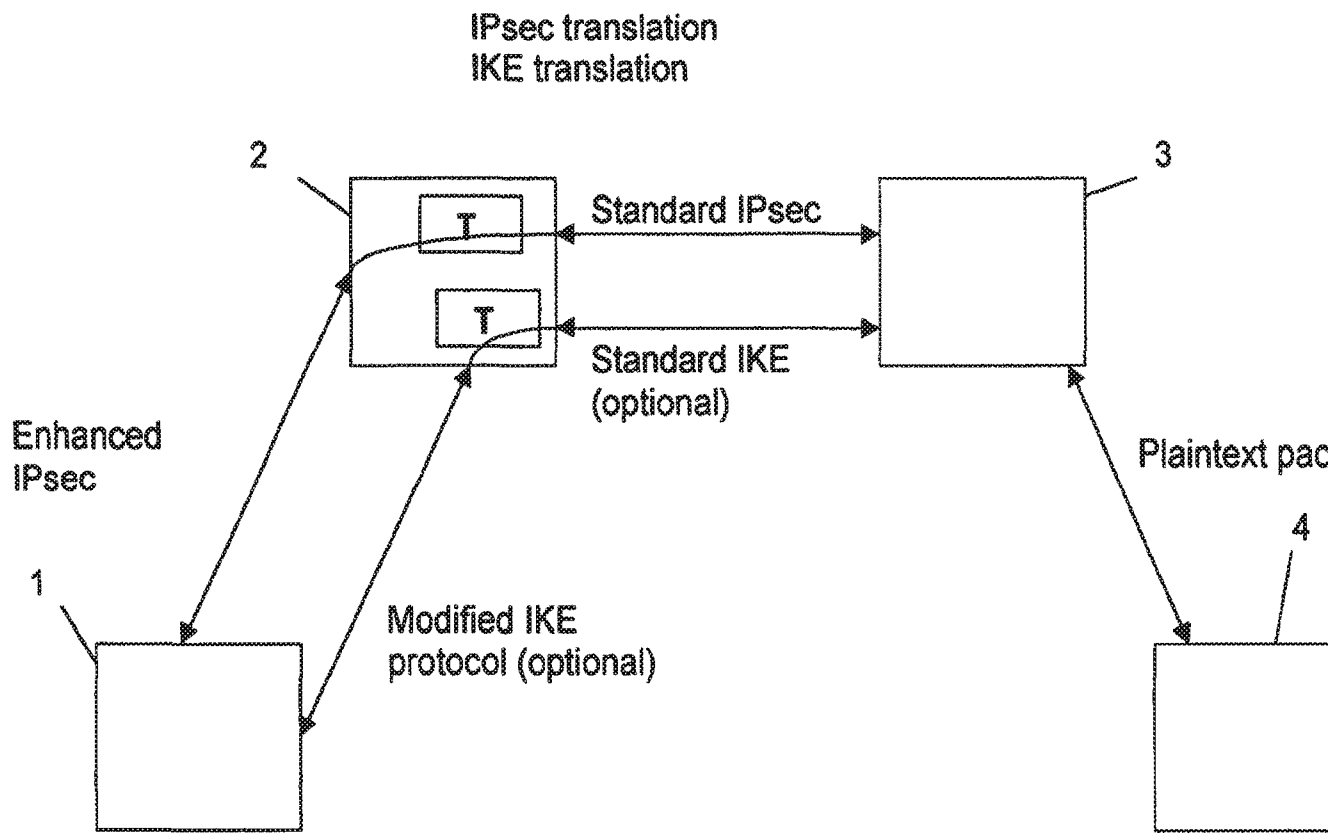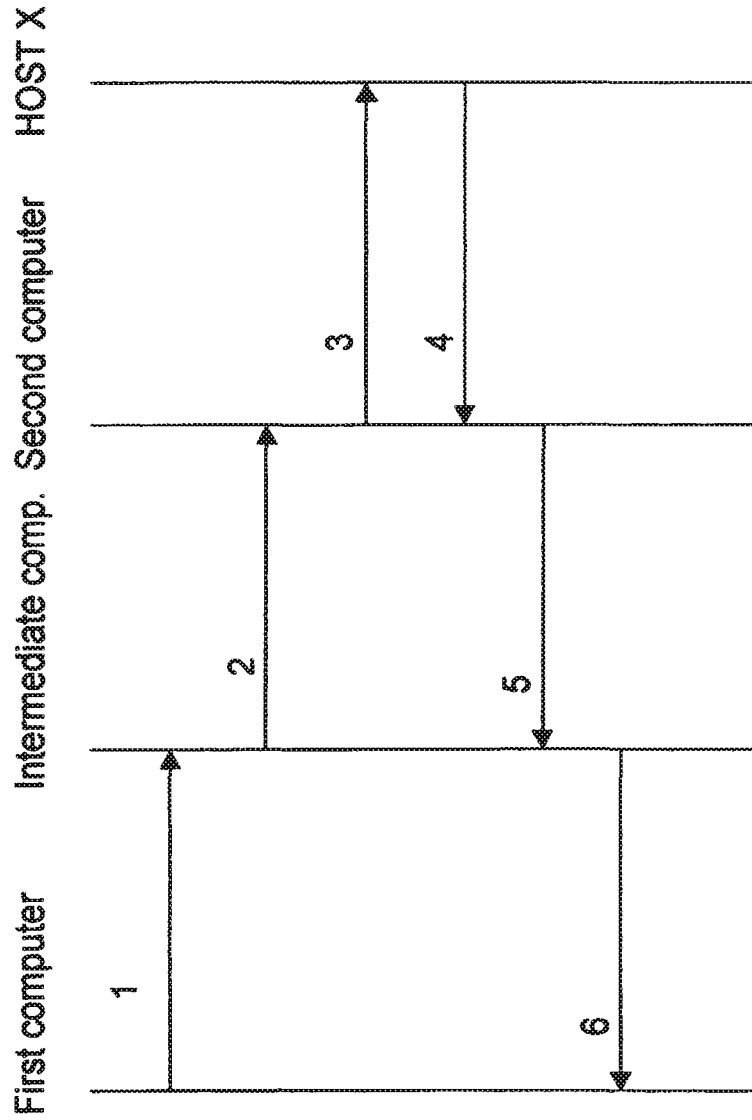
FIG. 2

c-addr-1	c-addr-2	c-SPI-1	c-SPI-2		s-addr-2	s-addr-3	s-SPI-2
195.1.2.3	212.90.65.1	0x80000001	0x12341234		212.90.65.1	103.6.5.4	0x1230012
...	...	...	...		...	...	...

FIG. 3

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