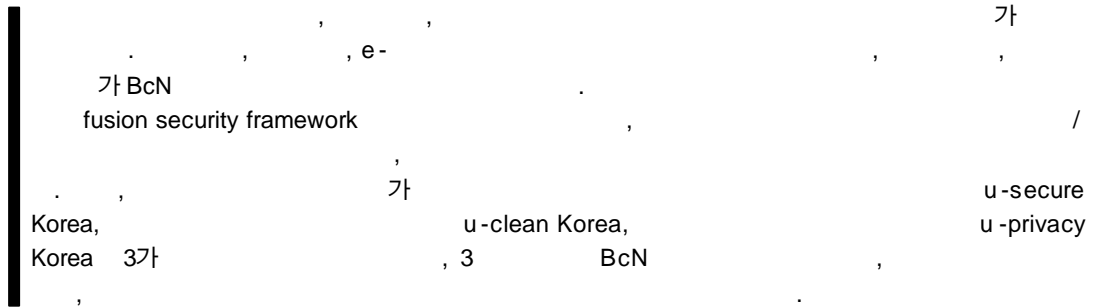


Fusion Security

Framework

Analysis of Fusion Security Framework for Secure Ubiquitous Environment

(K.S. Kim)
(B.C. Choi)
(D.I. Seo)
(J.S. Jang)
(S.W. Sohn)



I.

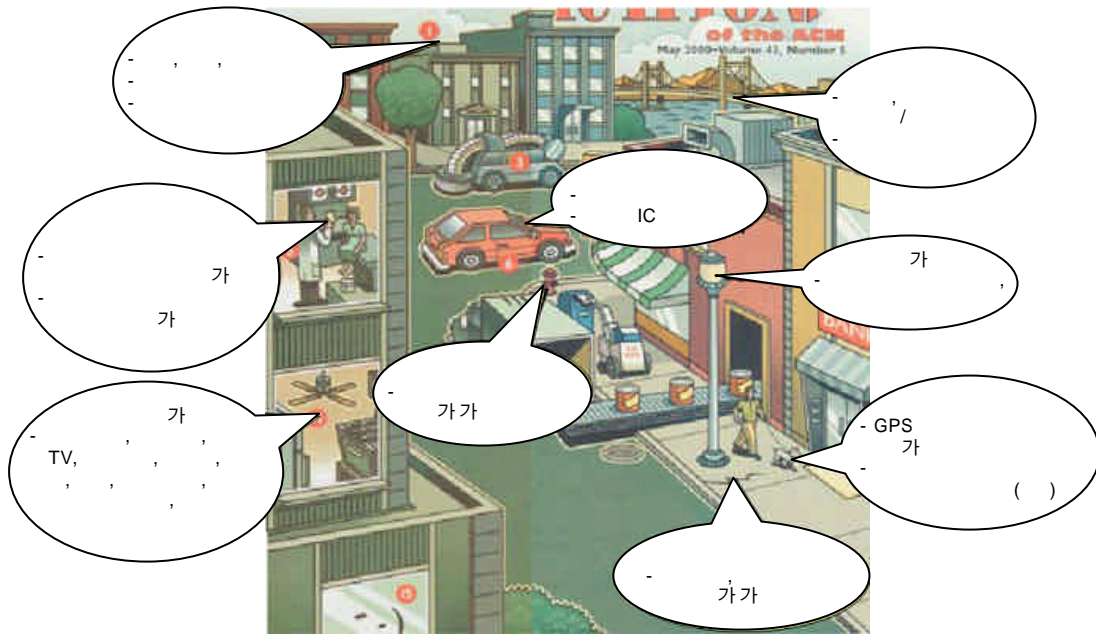
[1].

1.25

fusion security framework

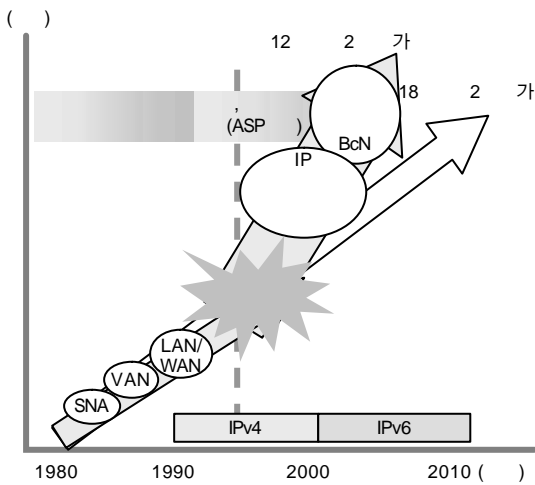
II.

가 가 ? 가 가 가 (1) IT 가 가 Estrin "Embedding the Internet(2000)" 가 가 가 (2)

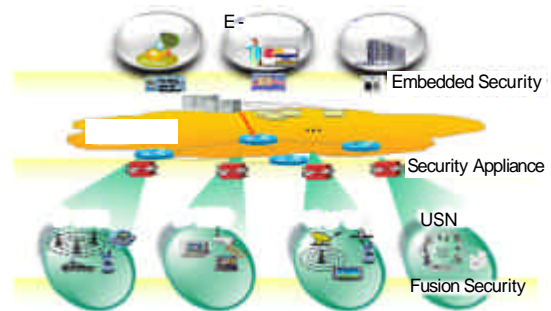


(1)

u-Life



(2)



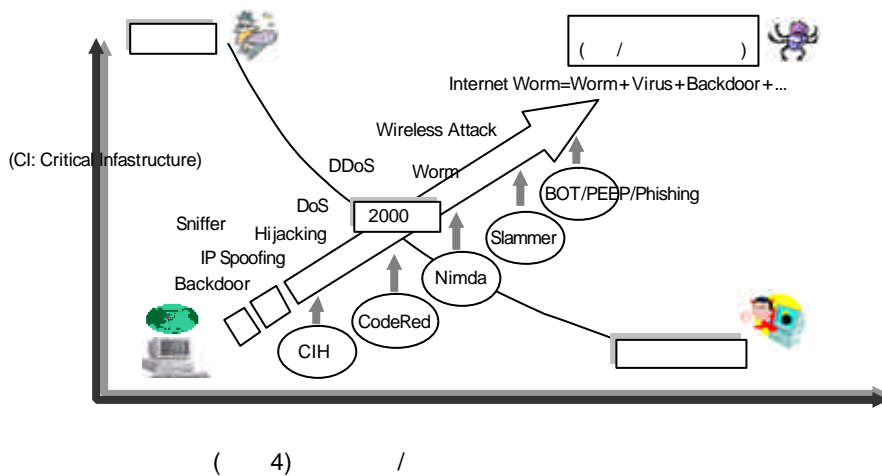
(3)

< >: , " , "2002.11.
 (2)
 18 2 가 ,
 12 2 가 [2].
 IP IPv4 IPv6
 , IP
 BcN .

가
 . (3) 가
 , , , e-
 , ,
 가 BcN
 [3],[4].
 5 dis-
 tancefree communication(
 ,
), QoS service, open API,
 broadband, IPv6가 distancefree
 society distancefree communication
 9 IT

4 QoS
 service, open API, broadband, IPv6 BcN 가 가
 1.25
 30 / 10
 embedded security 가
 BcN
 security appliance • 2 -
 90%가
 50%가 IPA
 2002 PC
 60%가
 / 2003
 2 6 / (), 24 6
 / (UNCTAD)
 • 3 - BcN
 가
 가 BcN
 가
 BcN 가
 가
 • 1 -
 (threat broker)
 2.

1.25



(4) . 2003 1.25

IT839

8.12

가

BOT, PEEP, Phishing

가

가

, 가

(5) (6)

, e-

(fusion)

, XML

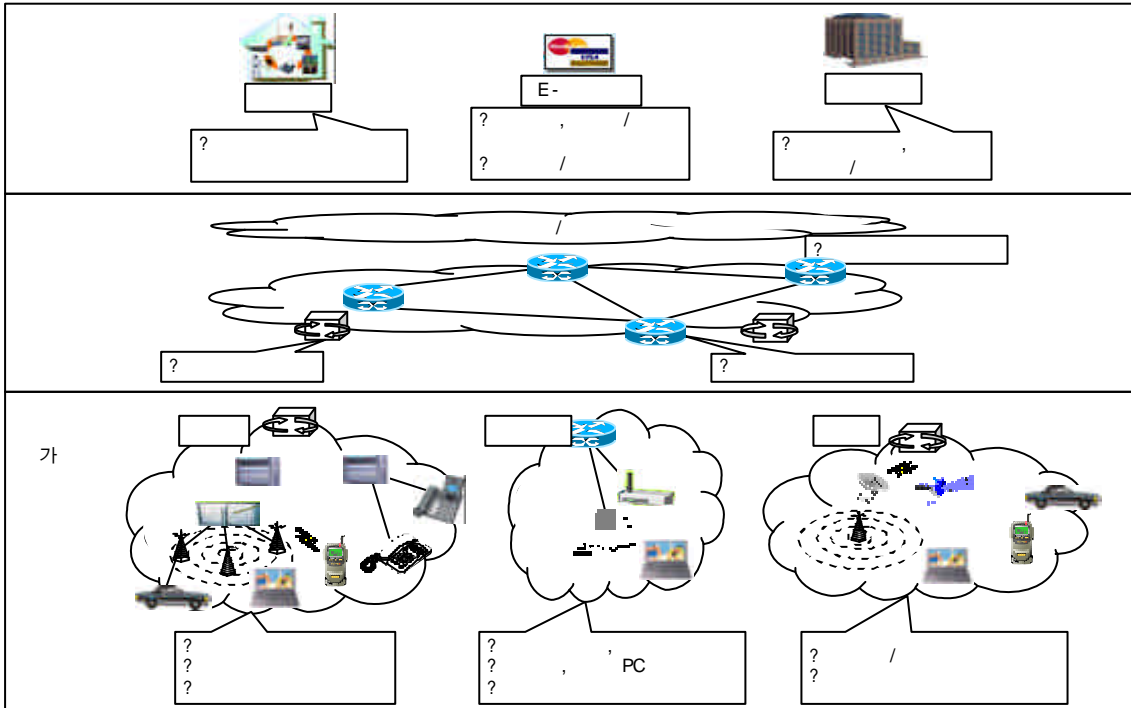
(point product)

가

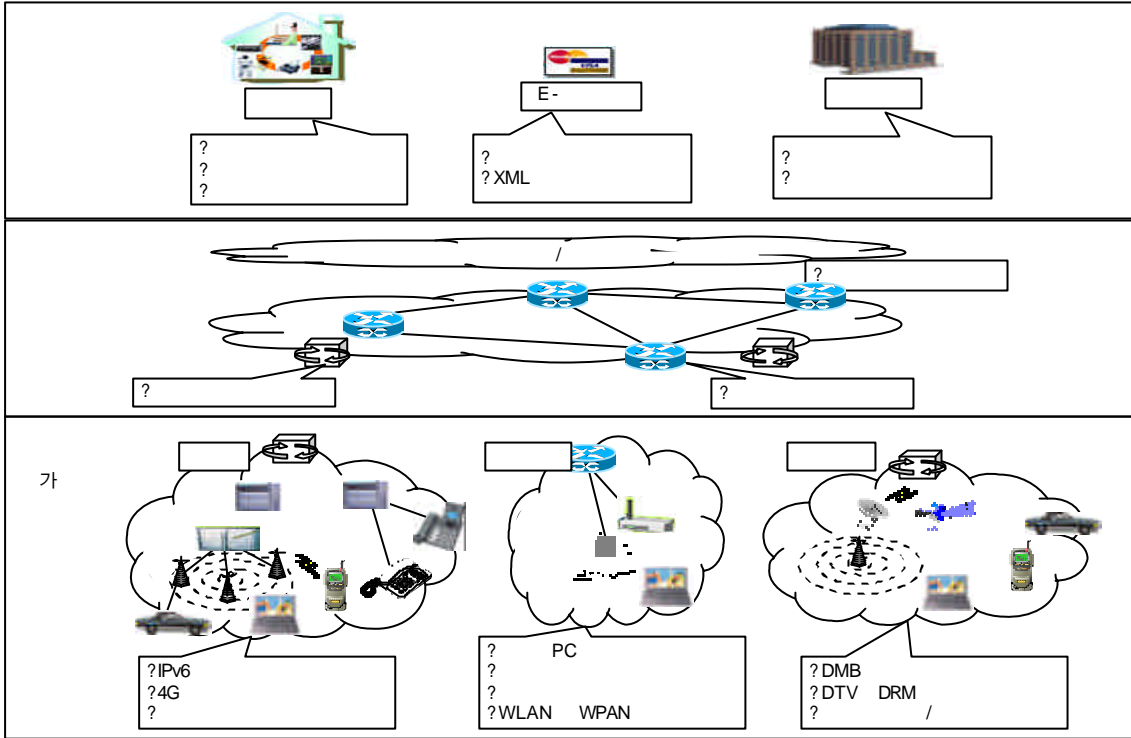
fusion security frame-

work가

3.



(5)



(6)

가 , 가 ”

가 [7],[8].

ETRI

가

PC , / , [9].

IPv6 , 4G 5. /

PC , WLAN WPAN , DMB , CA, Symantec, NA , CISCO, Nokia가

DTV IPMP, /

50

4. 가 R&D

가 R&D (CA, Symantec

7) [3]. DARPA, NSF, NIST CISCO, Nokia

가 , EU

R&D 가 가

[5],[6]. “

(:)

		2001	2002	2003	2004	2005	2006	2007	
Information Assurance and Survivability	DARPA	851	932	612	787	1,034	1,210	1,266	6,668
Cyber Security Research and Development Act	NSF	-	-	947	1,320	1,536	1,608	1,704	7,116
	NIST	-	-	384	564	732	924	1,104	3,708
		851	932	1,943	2,671	3,302	3,742	4,074	17,492

		2001	2002	2003	2004	2005	2006	2007	
EU R&D (15%)		-	7,202	7,202	7,202*	-	-	-	21,606

* 2004 : EU R&D 2004 2003 , 2003

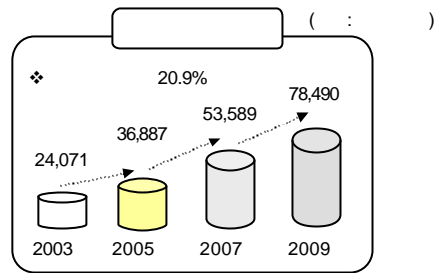
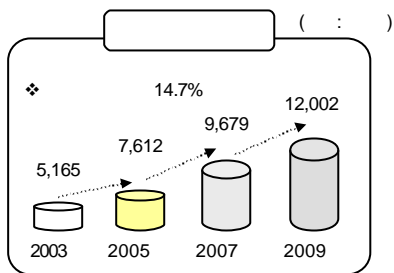
		2001	2002	2003	2004	2005	2006	2007	
		-	1,540	2,277	2,277*	-	-	-	6,094
		-	-	336	474	-	-	-	810
		-	-	-	321	-	-	-	321
		-	1,540	2,613	3,072	-	-	-	7,225

* 2004 : , 2003

		2001	2002	2003	2004	2005	2006	2007	
	ETRI	-	-	204	204	204	204	204	1,020

< >: DARPA, Fiscal Year 2003 Budget Estimates, 2002. 2.
NSF Activities in Cyber Trust, 2003.
2004
2004 , ETRI , 2003. 12.

(7) 가 R&D
가 4~10 / 가
Gbps / Netflow 2002
NTT 2002 managed secu- managed security service , KT
rity service
가
6.
secure OS
가 IT
1Gbps 6.7%
PKI (8) 14.7%
가 identity , 20.9%



< >: IDC/ETRI, 2003.4. (8)

, privacy-guaranteed Internet BOT, PEEP, Phishing IT [10].

IV. Fusion Security

1.

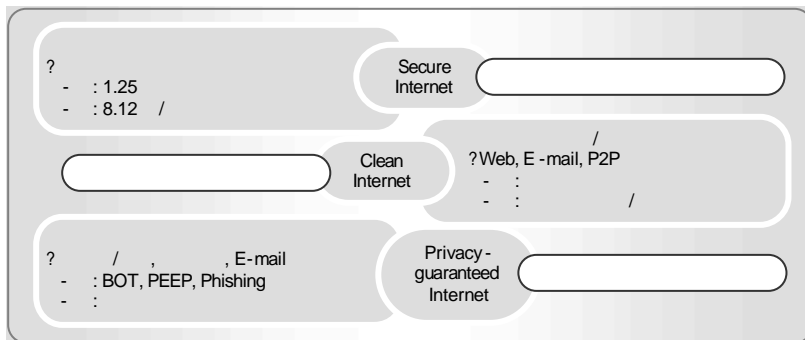
fusion security framework secure, clean, privacy-guaranteed Internet (9) secure Internet 1.25 8.12 /

, clean Internet /

2. Components

Fusion security u-secure, u-clean, u-privacy 3 components IT839 fusion security (6) . 3 components elements , elements components CIA(Confidentiality, Integrity, Availability)

- u-secure component LC(Low Confidentiality), LI(Low Integrity), HA(High Availability) 가 ,



(9) Fusion Security

- u-clean component HI(High Integrity), LA (Low Availability) 가 , / /
- u-privacy component HC(High Confidentiality), LI 가 . (10)

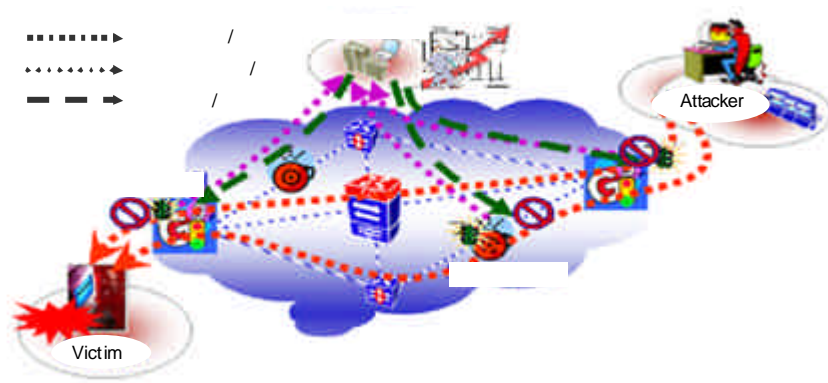
가. u - Secure Component

. u - Clean Component

1.25 8.12 / 가 50% ,
 , / / 가 가 . ,

(F/W), (IDS), (IPS), / ,
 PC , u-clean component
 가 . , u-secure component

BcN/USN/IPv6 ,
 가 가 / /
 PC secure clean - room
 DDoS(Distributed De- (11)



(10) u-Secure Component



(11) u-Clean Component



(12) u-Privacy Component

. u - Privacy Component

e- ID

BOT, PEEP, Phishing

BcN/USN/IPv6

/ 가

가

(12)

ID/

()

3. IT839 Components

2012 2

IT839

fu -

u-privacy component

sion security

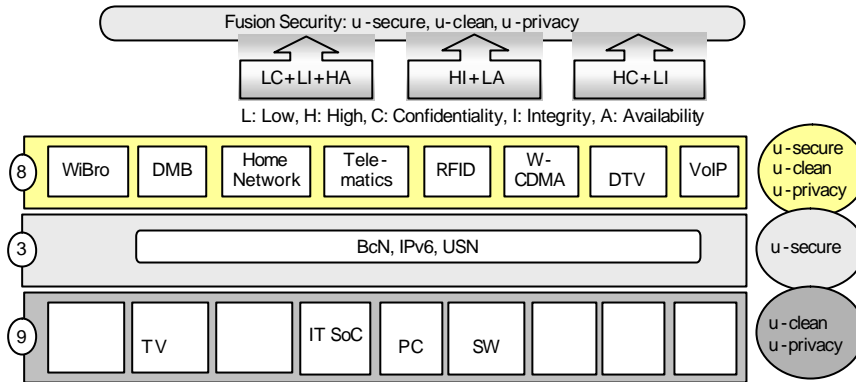
가

가 secure-QoS가

/

u-secure, u-clean, u-privacy components

ID/



(13) Fusion Security IT839

가 , u-secure com-
 가
 ponent가 ,
 가
 u-clean, u-privacy components
 ((13)).

< 1>

	- 2004 2007	
	240	
	- 2004 100 ,	
	140	
	- 2004 1,300	
	- 2004 300	
	- 2004 630	

V.
 1.

fusion se-
 curity framework
 가

ITRC

< 1>

가 ,
 [3].

4

CMU

Perdue

ITRC

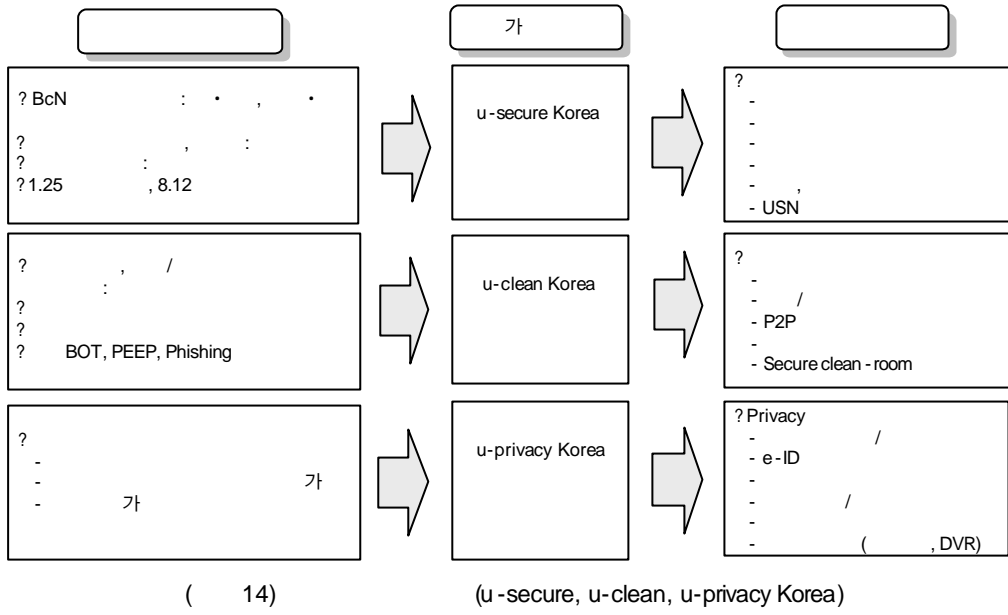
. ITRC

, ITRC

가 50% , 가
 , (14) fusion security
 framework

u-secure Korea,
 u-clean Korea,
 u-privacy Korea 3

4가



- 1) 가 , 2007 가
 - 2) 4 , 가가 2.3 , 3.3 .
 - 3) ITRC 가 VI.
 - 4) (,) 가 , , 가
2. IP IPv6 , IP IPv4 BcN . 가 , , , e- 가 BcN fusion se- curity framework 가 u-secure Korea, u-clean Korea, u-privacy Korea 3가

, 3 BcN , [3] ICAT2004, “ ;”
2004. 4.
[4] , “IT ,” 2004.
[5] DARPA, Fiscal Year 2003 Budget Estimates, 2002. 2.
[6] NSF Activities In Cyber Trust, 2003.
[7] 2004 ,
[8] 2004 ,
[9] IDC/ETRI , “
[1] Estrin, “Embedding the Internet,” 2000. , “ ,” 2003. 4.
[2] , “ ,”
2002. 11.