

기획리포트

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DVR(Digital Video Recorder)

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KETI

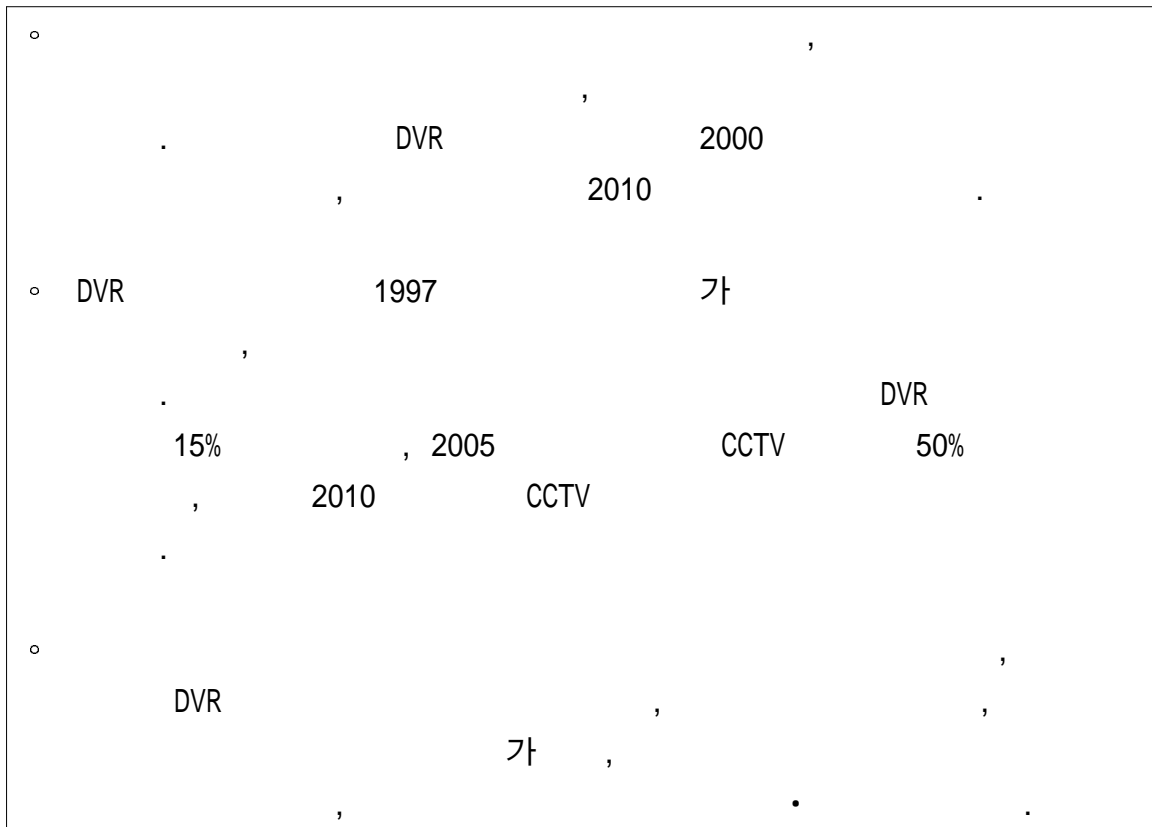


주간 전자정보

Biweekly Electronics Information 2004. 07. 16

보안용 DVR 산업동향

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1. 산업개요

1. DVR

- DVR “Digital Video Recorder” , 『
 가 DVR , PVR(Personal Video Recorder) .

○ 가 가 “ DVR ” “ DVR ”
 가 가 , “ 가 DVR ” PVR(Personal Video
 Recorder)
 DVR . ,

○ DVR :

- CCTV
 , ,
 가 TV(CCTV) ,

- , MPEG HDD
 가 , .

○ 가 DVR (PVR : Personal Video Recorder) :

- (Magnetic Tape) VCR
 (HDD) 가
 .

- TV
 (HDD) VCR , 가 가 .

2. DVR

- (CCTV) 가
VCR
, DVR 가
, , , ,
가
- DVR ,
Auto Pan, Tilt, Zoom, , ,
가 . 가, HDD, ODD , 가
CCTV .
- , , 가 가
, 가 ,
- DVR , ,
.
- CCTV ,
가 , DVR 가 .
- , DVR 1997 가
.

3. DVR CCTV

- CCTV VCR
Video Tape , , , ,

< 1> DVR CCTV

	CCTV	DVR
		HDD
	6	3 ~ 5
		가
Over lay		
	(8)	(16)
		, ,
	가 가	(S/W 가)
	2	5
		가
	가 ()	HDD 가
	가가 ,	가
		가

II. 시장동향

- 1997 , 100 가 , DVR
10 ~ 20 , .
- DVR CCTV , , .
- , 2005 CCTV 50% DVR 15% 2010
DVR .

< 2>

(:)

	' 02	' 03	' 04	' 05	' 08
	26.8	31.8	37.2	43.2	-
DVR	-	-	17.0	24.0	-

* : (5/25, 6/16)

- 45% ~ 48% , DVR
30% 가 가 .

< 3>

(:)

	' 02	' 03	' 04	' 05	' 07	' 08
	12.3	14.7	17.3	20.1	23.1	26.3
CCTV	1.2	1.1	1.0	0.8	0.7	0.5
DVR	0.9	1.4	1.9	2.5	3.0	3.6

* : J.P. freeman

○ DVR 9. 11 가
DVR 가 , .

- , SI 가
,

○ CCTV DVR 7:3
, 2003 1,750 , 2004 1,900 ,
2005 2,230 , 2008 3,200 12.8%

DVR

< 4> DVR

(:)

	' 02	' 03	' 04	' 05	' 08
DVR	-	1,750	1,900	2,230	3,200
DVR	-	-	3,420	4,200	-

* : (6/16, 6/21)

○ 5 가
, 가

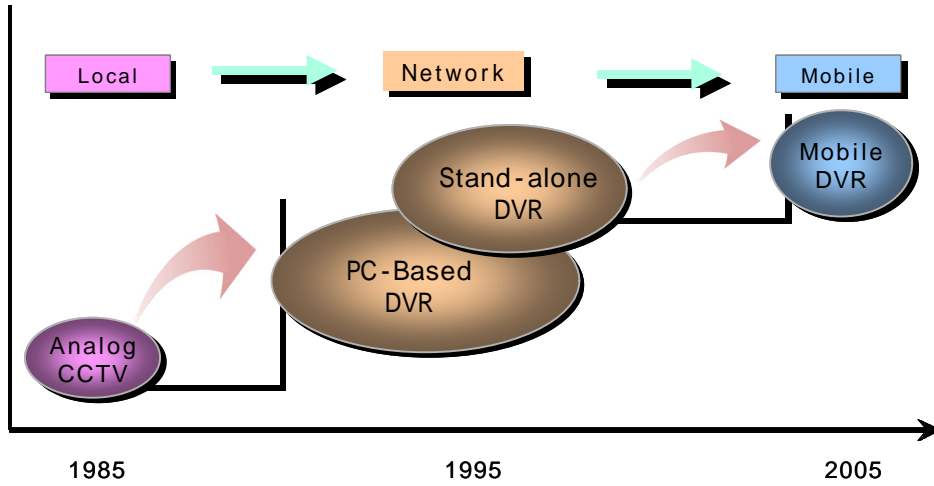
○ , DVR
, LG 가 가
, 가

III. 기술동향

1.

- 1997년 DVR
 - 1 (1997년) : (Stand-alone) DVR
 - + + ()
 - , , , PTZ
 - 2 (1998년) : 1:1 DVR
 - + + +
 - 1:1
 -
 - 3 (1999년) : (Video Server) DVR
 -
 - N : N : /
 - PC DVR
 - , , , PTZ
 - 4 (2000년) : (Voice) DVR
 - (=)
 - DVR 1~2 (Mono/Stereo)
 - 5 (2003년) : DVR
 - POS DVR
 - IP DVR
 - DVR
- * DVR : DVR(Transit DVR)
 - , , , ,
 - , .

< 1> DVR

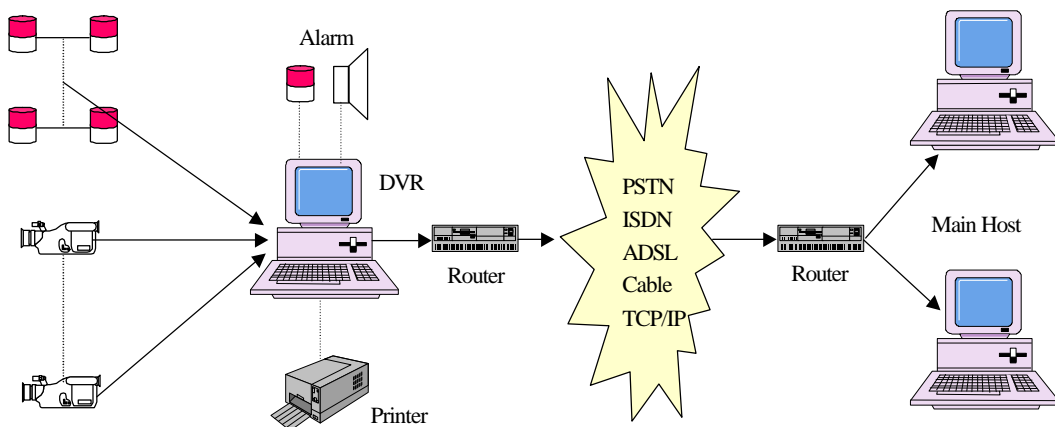


2.

- DVR MEPEG-1, MEPEG-2
 , PSTN
 , 가

- DVR CCTV
 가

< 2> DVR



3.

- Stand-Alone DVR 가 , 가가 , PC DVR

< 5> PC Type Stand-Alone DVR

	PC-Based DVR	Stand-alone DVR
	가	
	<ul style="list-style-type: none"> • 가가 • Customizing SI 	<ul style="list-style-type: none"> • OS / 가 • CCTV 가
	<ul style="list-style-type: none"> • 가 • 가가 	<ul style="list-style-type: none"> • 가 • CCTV 가
	<ul style="list-style-type: none"> • Stand-alone DVR 가 PC-Based DVR 	

- PC Stand-Alone DVR , GPS Mobile DVR , POS ATM DVR, IP DVR, DVR

- DVR , , DVR, Mobile DVR DVR 가 .

- - D1 (720 × 480 × 2bytes × 30fps) = 20.7Mbytes/sec 1.8 Tbytes/day

- - JPEG Wavelet가 , 15 ~ 40kbytes .

- - - H.263 -
 - MPEG 1 - VCD
 - MPEG 2 - DVD ()
 - MPEG 4 H.264가 .
 - DVR , Pre-Processing Post-Processing .

- - 1 Channel : VCR
 - 4 Channels : Quad
 - 9, 16 Channels : Multiplexer
 - 32, 64 Channels : •
 - 1024 Channel :

- - Analog : 60/60 가
 - 120/480, 240/480, 480/480()
 - D1 (720 × 480) ,

-
- Back-up, Copy
 - SCSI
 - USB 1.1(10Mbps) USB 2.0(480Mbps)
 - IEEE 1394
- Internal CD-RW, USB Flash Memory, Memory Stick, SD/MMC etc...

-
- 24 , 365
- 가 VCR PVR 30

- Multimedia Data Base
- Windows, Linux File System :
- Multimedia DB , ,

- HDD
- S.M.A.R.T
- 가
- Bad Sector

-
- EK, EMI, FCC, UL, CE, CCC
- ,
- ,
- MTBF()

- (Motion Detection)
- Activity detection Intrusion detection
- Segment, direction

- (Time-Sync.)
 - : < 2sec/day
 - DVR
 - LAN, Modem
 - , ()

- (Authentication)
 - Watermark, Fingerprint
 - Chained Fingerprint
 - Watermark

- Smart Search
 - Calender search, Alarm/event search.
 - Museum Search(Object search)

- POS, ATM
 - Text input for Transaction.
 - Text Search - ,

- Access Control
 - (:)
 - RFID

- - ~ DVR , • •
 -
 - , , ,

- IP-Camera DVR
 - Analog Camera IP Digital .
 - Di .

IV. 업체동향

- DVR 2001 6% 2003 30%

< 6> DVR

	2001	2002	2003()
()	164	166	98
DVR ()	10	28	30
(%)	6	17	30

* : , 2003

- 가가 , 가

- ,

- 60% , 가

- 가 , HDD

- DVR

- , IP DVR 68

- 가 DVR , DVR
- MPEG4
- , VOIP, DVR
- ASIC RTOS 가 BMS 570
DVR
- , , , 5 , 7 , 8
- SI ,
- DVR 가 가 , 8
(motion detection)
가 8 DVR
- LG DVR
- , DAV
- DVR ,
DVR 가
- PC DVR 1, 4,
9, 16 Stand-alone DVR 4

- DVR MPEG 4
 - , . , SoC
 - , SoC
 - , 16 , 30 ~
 - 480 , , DVR SoC
 - , 16 , MPEG4
 - MPEG4 DVR , MPEG4
 - , MPEG4 ,
 - , MPEG4 ,
 - 30 가
 - , PC DVR ' MV9100 '
 - , 30
 - , MPEG4 ,
 - , MPEG4 ,
 - (MAP) , MPEG4
 - (CAP) 2004 , MPEG4
- ,
- 가

V. 정책적 지원방안

○ DVR

- , , 가 , , ,

○ DVR

- , , 가가
(: 2005 20)

○ DVR

- CCTV가
DVR 가 ,
DVR 가 , NT, KT
()

○ DVR

DB
- DVR , , 가
, ,

* DVR

(HS 8471-50-1000)

* (HS 8521-90-9000) : 70

(HS 8471-50-1000) : 80

6 29 , ,
DVR 가 COEX
“ DVR ”

- , 6394(2004. 06. 29)
- , , 2004. 04 ~ 2004. 07
- , , 2004. 04 ~ 2004. 07
- , , 2004. 05 ~ 2004. 07
- (<http://www.eic.re.kr/>)