

# AP-SBS10000

## Smart HD Broadcasting Server



**AddPac**

**AddPac Technology**

Sales and Marketing

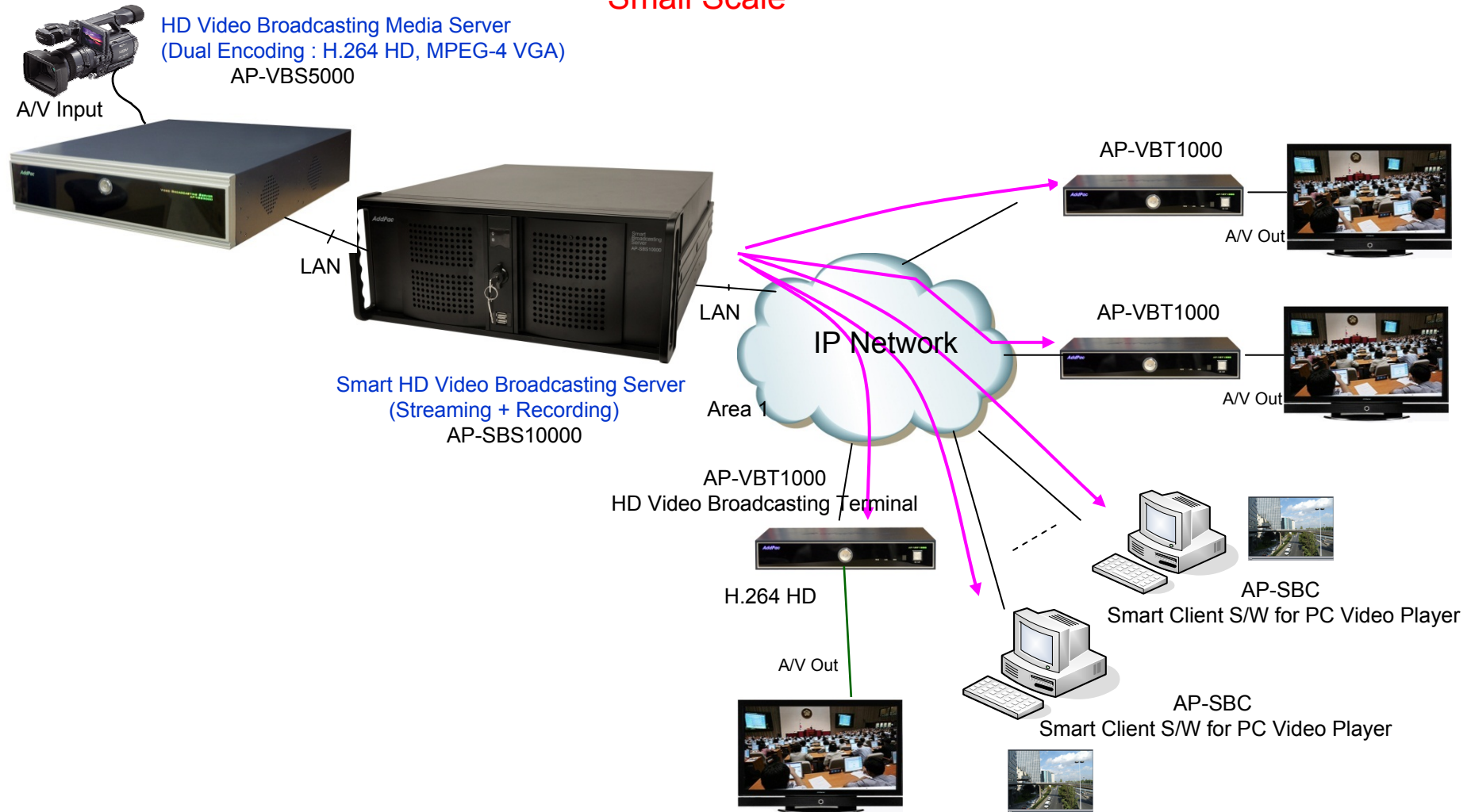
[www.addpac.com](http://www.addpac.com)

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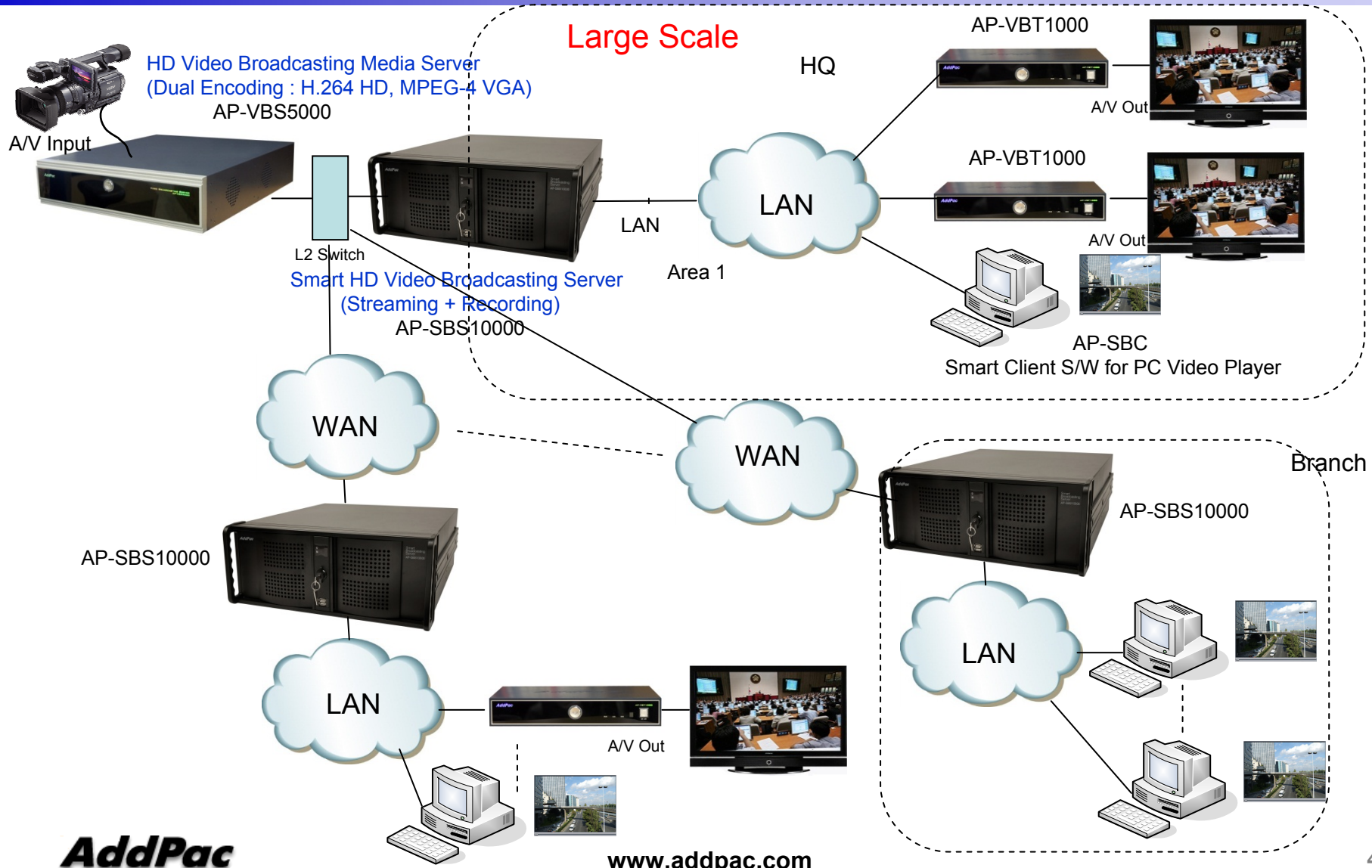
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(AP-SBS10000)
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  - HD Video Broadcasting Terminal  
(AP-VBT1000)
  - Smart Client Software for PC Video Player  
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# Smart HD Video Broadcasting Service Diagram

## Small Scale



# Smart HD Video Broadcasting Service Diagram



# HD Broadcasting Server Protocol Block Diagram

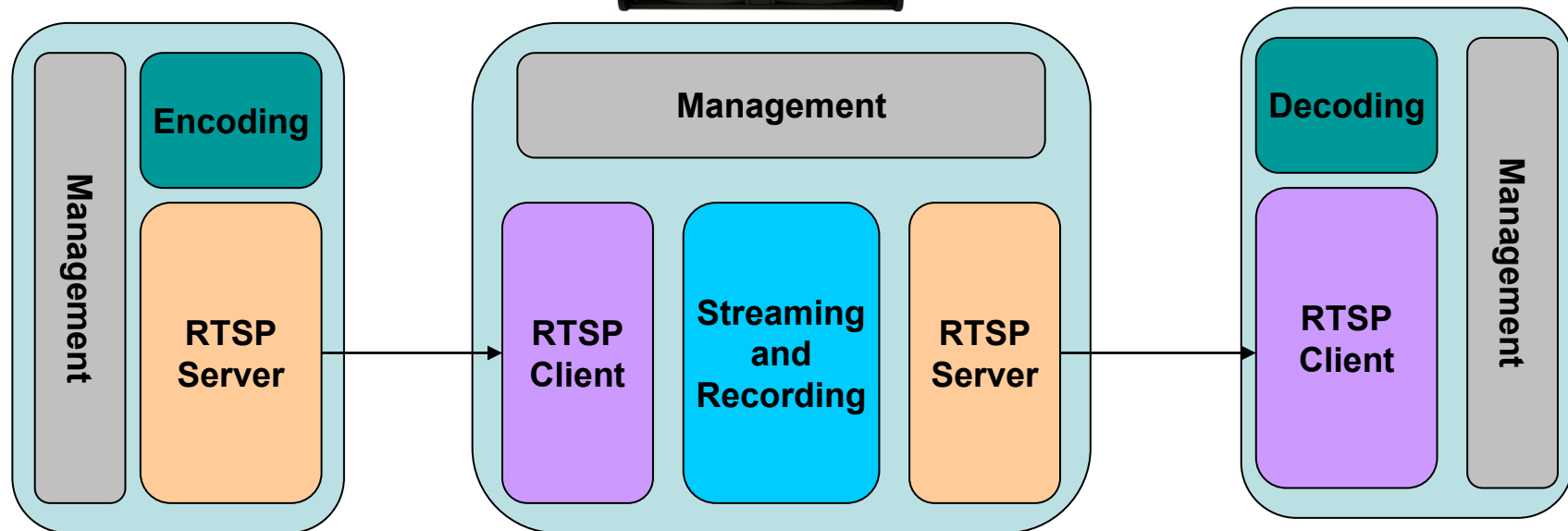
HD Broadcasting Media Encoder



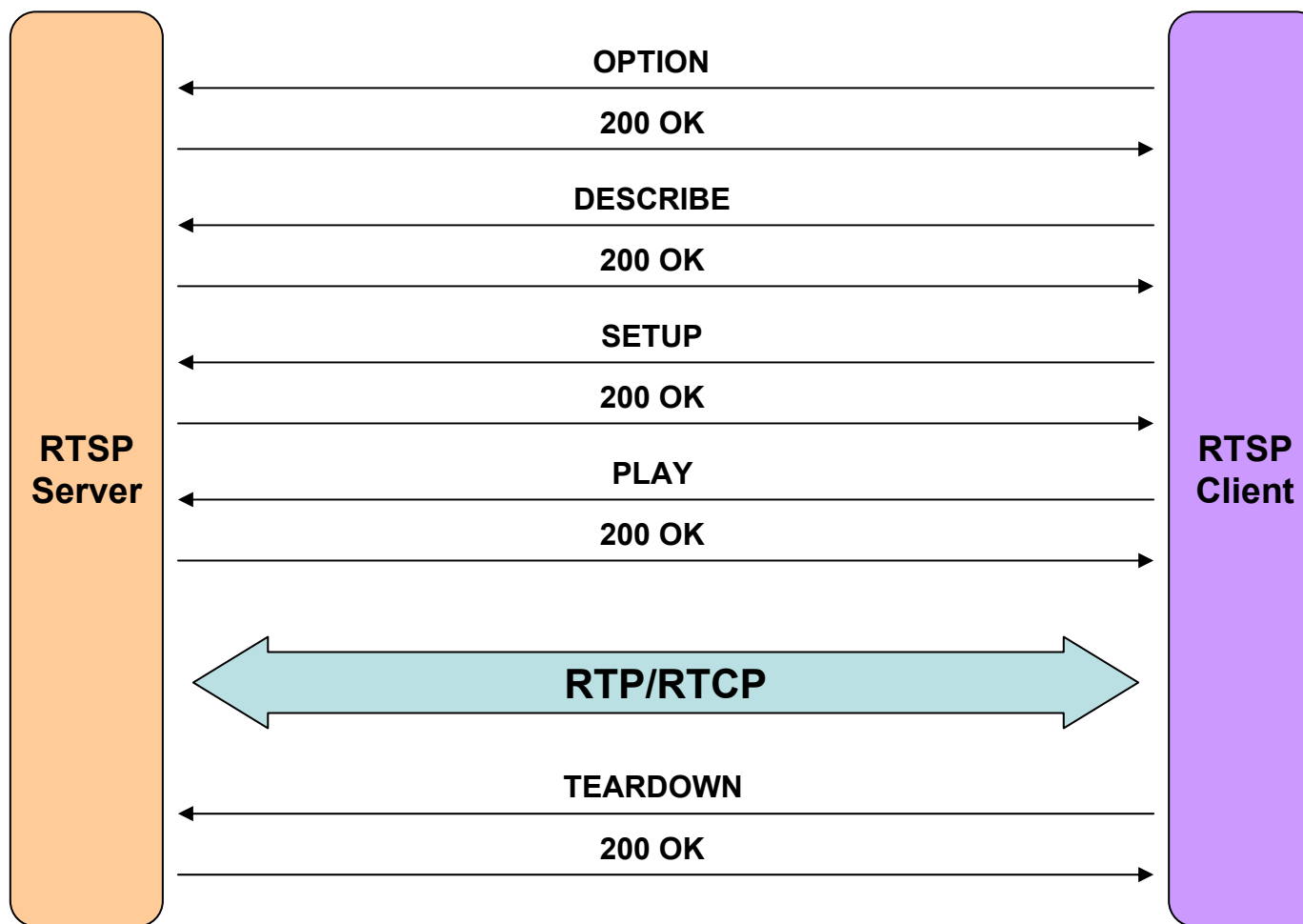
AP-SBS10000 Smart HD Broadcasting Server  
(Streaming + Recording)



HD Video Broadcasting Terminal



# Basic RTSP Message Flow





# Smart HD Broadcasting Solution Component Features



# AP-SBS10000

## Smart HD Broadcasting Server



# Product Overview

## AP-SBS10000 Smart HD Broadcasting Server

- High-Performance HD/D1 Video Broadcasting Service Features
- Linux Operating System
- H.264 Video Codec
- HD, D1 Video Resolution Support
- HD Video Recording and Streaming Service
- Live Broadcasting and On-Demand Service
- Smart Client Broadcasting Video Player Support (MS-Window S/W, Web based)
- Smart Client Broadcasting Manager Support (MS-Window S/W, Web based)
- Powerful Management and User Friendly Features
- High-performance Audio and Video Service
- Firmware Upgradeable Architecture
- Up to 4 x 3.5Inch Hard Disk (SATA Type, 2Tera Byte Support)
- One(1) 10/100/1000Mbps Gigabit Ethernet Interface
- USB Interface Support (Front Side, Back Side)

# Hardware Specification

AP-SBS10000 Smart HD Broadcasting Server

High End  
Processor

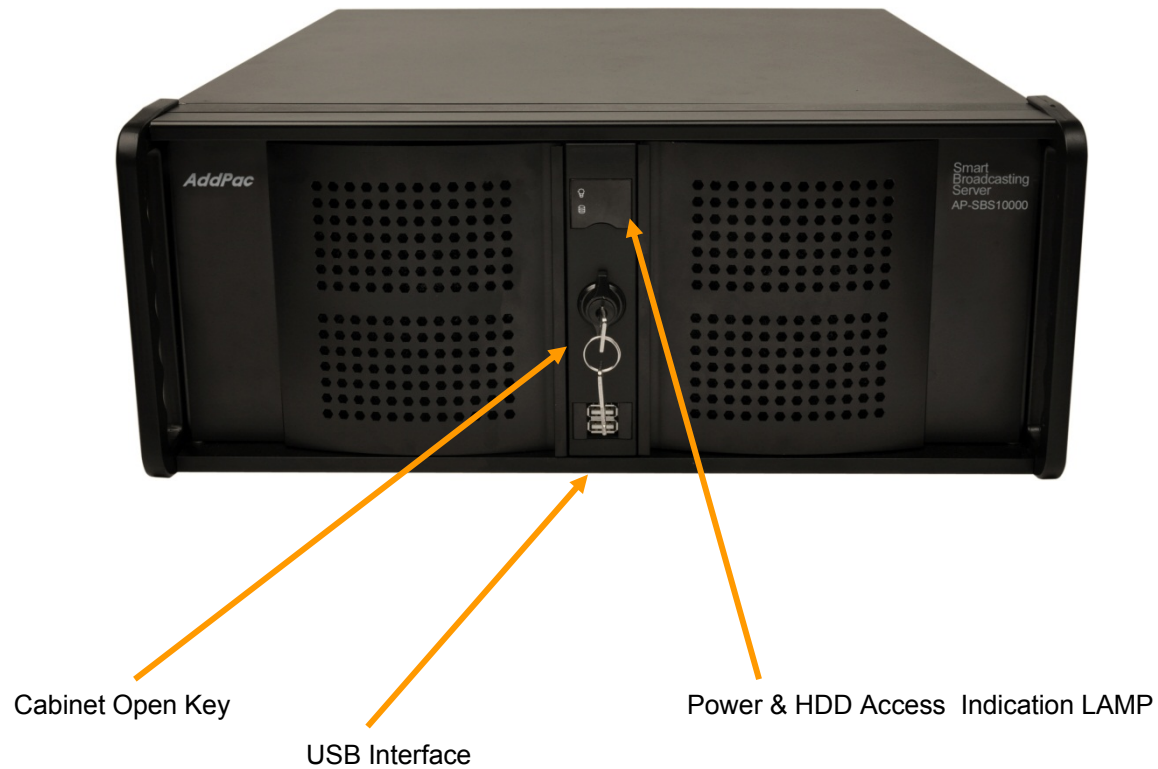
- High Performance Computing Power
- Main Chassis
  - Network Interface
    - One(1) 10/100/1000Mbps Fast Ethernet
  - Video Output Interface
    - HDMI, DVI, RGB Video Output
  - USB 2.0 Interfaces for Mouse, Keyboard, etc
  - One(1) DVD Writer for Video File Backup
  - Up to Four(4) Hard Disk

# Hardware Specification

AP-SBS10000 Smart HD Broadcasting Server

High End  
Processor

AP-SBS10000 Front Side

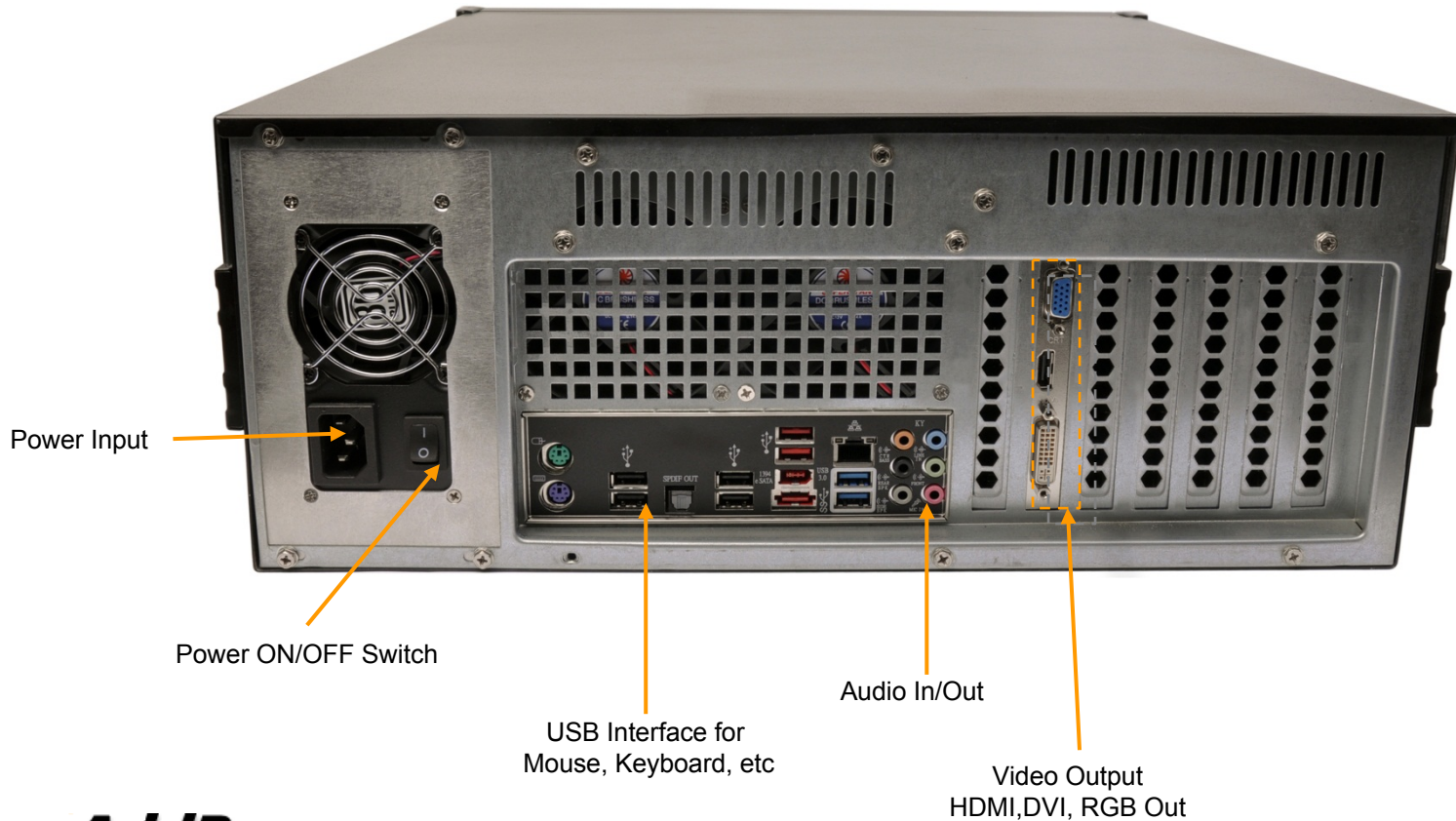


# Hardware Specification

AP-SBS10000 Smart HD Broadcasting Server

High End Processor

AP-SBS10000 Front Side






# Smart HD Broadcasting Server Features

- Broadcasting Media(Encoder/Decoder) Interface
  - UDP/RTP
  - RTSP (Real Time Streaming Protocol)
- Recording
  - Manual Recording
  - Schedule Based Recording
  - Recording Monitoring
  - Recording Media File Maintenance
- Management
  - Web Based Management
  - SNMP (Simple Network Management Protocol)



# HD Broadcasting Media Server

# HD Broadcasting Media Server

	<b>AP-VBS7000</b>	<b>AP-VBS6000</b>	<b>AP-VBS5000</b>
			
Video Codec	H.264	H.264	H.264, MPEG4
Video Resolution	1080i Full HD, 720P HD	1080i Full HD, 720P HD	H.264 : 720P HD MPEG4 : VGA, QVGA
Video Input Interface	HD-SDI, HDMI, Analog, etc	HD-SDI, HDMI, Analog ,etc	Component, HD-SDI, RCA, S-Video, RGB
Audio Interface	RCA Stereo Interface	RCA Stereo Interface	RCA Stereo Interface
LAN	Gigabit Ethernet	Gigabit Ethernet	Gigabit Ethernet
Channel Number	Up to Ten(10) Video Module Slot Support	Up to Four(4) Video Module Slot Support	Two(2) Video Input Support



# AP-SBM

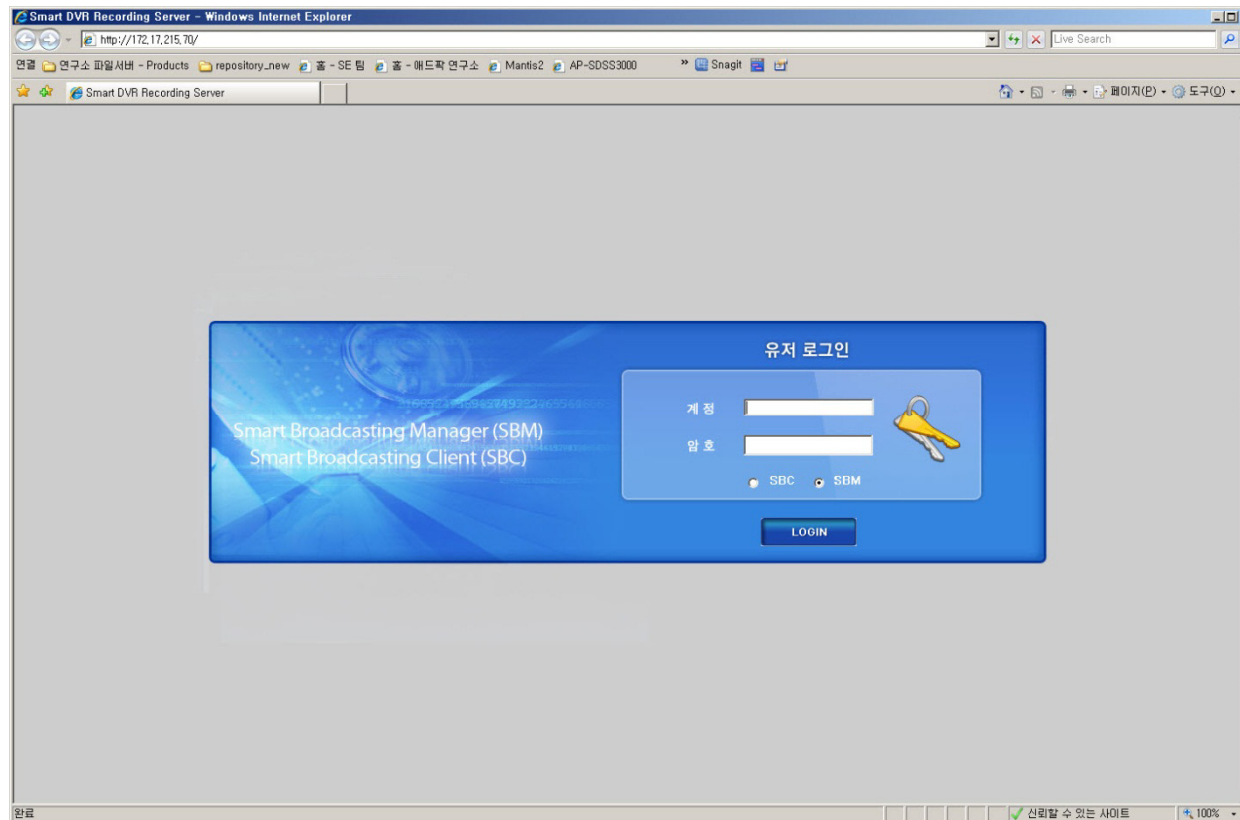
## Smart Broadcasting Manager



# SBM Main Features

- Web based Management Scheme
- User Register and Access Restriction Management
- Broadcasting Source Management
- Schedule based Broadcasting Service
- On Demand Broadcasting Service
- Live Session Monitoring
- On Demand Session Monitoring
- Recording File Search and Display
- Recording File History Management
- Broadcasting Media Source Management
- Broadcasting Server Status Monitoring

# SBM Web Intro. Display



# SBM User/Group Management

The screenshot shows the AddPac Smart Broadcast Manager web interface. The main content area displays a table with columns for ID, 이름 (Name), 그룹 (Group), and 설명 (Description). The table contains one entry: root user.

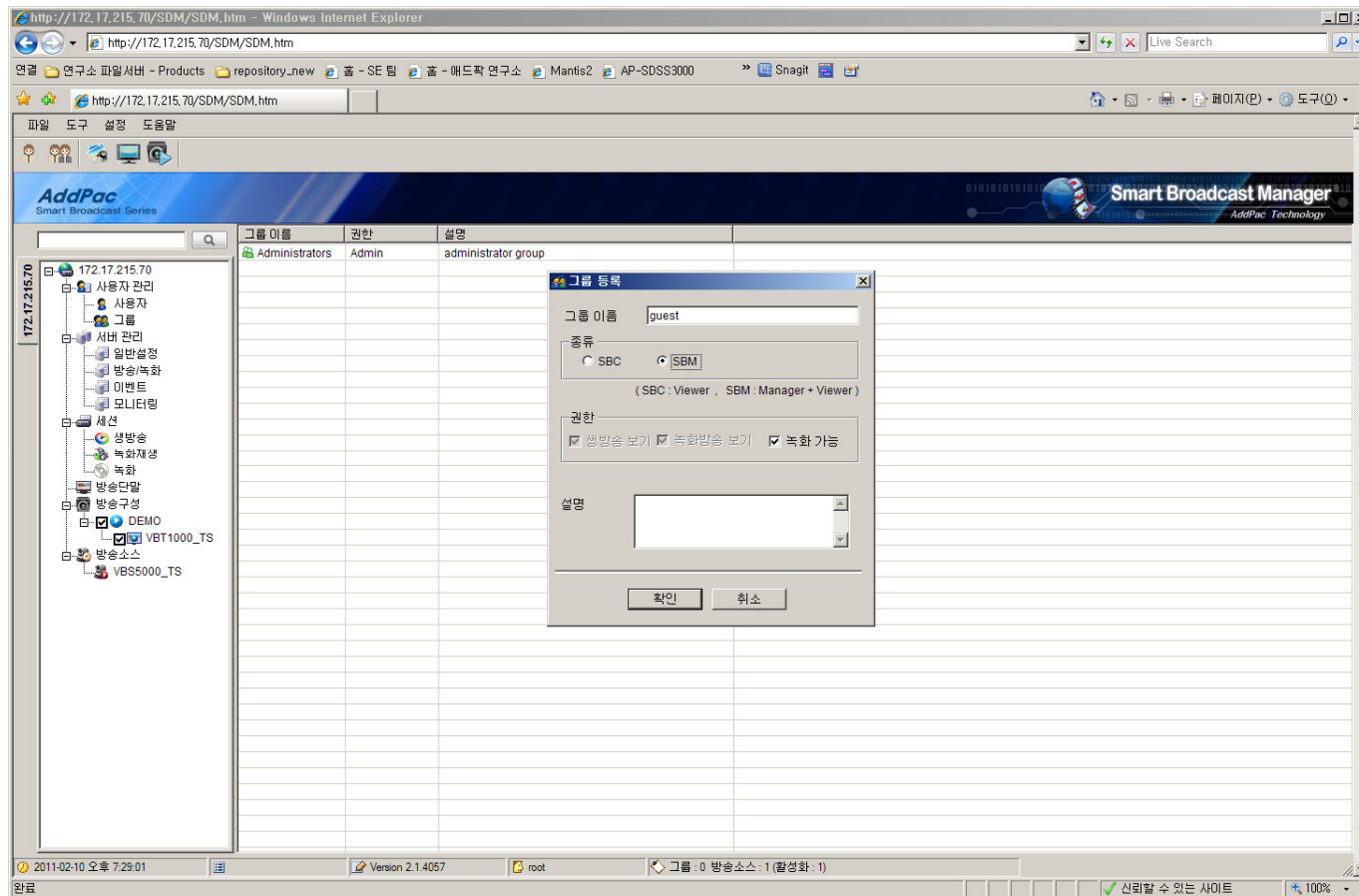
ID	이름	그룹	설명
root	AddPac	Administrators	root user

A dialog box titled '사용자 등록' (User Registration) is open, showing the following fields:

- 사용자 ID: guest
- 사용자 이름: guest
- 그룹: Administrators
- 설명: guest
- 여러 사용자 로그인 허용
- 비밀번호: \*\*\*\*
- 비밀번호 확인: \*\*\*\*

Buttons for '확인' (OK) and '취소' (Cancel) are visible at the bottom of the dialog box.

# SBM User/Group Management



# Broadcasting Server Management

The screenshot displays the AddPac Smart Broadcast Manager web interface. The browser window title is "http://172.17.215.70/SDM/SDM.htm - Windows Internet Explorer". The address bar shows "http://172.17.215.70/SDM/SDM.htm". The interface features a navigation tree on the left with the following items:

- 172.17.215.70
  - 사용자 관리
    - 사용자
    - 그룹
  - 서버 관리
    - 일반설정
    - 방송/녹화
    - 이벤트
    - 모니터링
  - 세션
    - 생방송
    - 녹화재생
    - 녹화
    - 방송단말
    - 방송구성
      - DEMO
        - VBT1000\_TS
      - 방송소스
        - VBS5000\_TS

The main configuration area is titled "일반 | 설정" and contains the following fields:

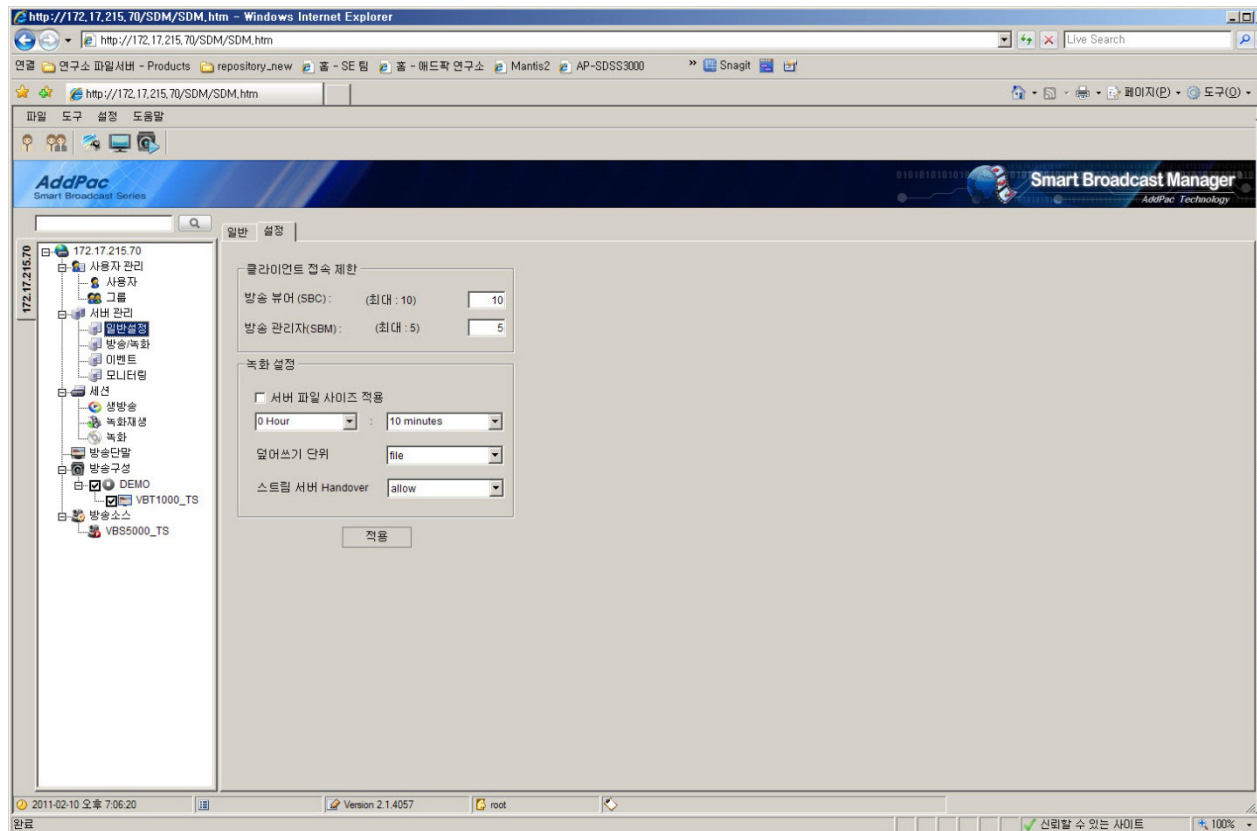
- 서버 IP 주소: 172.17.215.70
- 서버 포트: 9020

Below these fields are two tables for "클라이언트 세션" (Client Sessions):

유어 목록		관리자 목록	
사용자	IP 주소	사용자	IP 주소
root	172.18.1.4	root	172.17.1.115

The status bar at the bottom shows the date and time "2011-02-10 오후 6:46:46", the version "Version 2.1.4057", and the user "root".

# Broadcasting Server Management



# Broadcasting Schedule Management

The screenshot shows the AddPac Smart Broadcast Manager web interface. The browser window title is "http://172.17.215.70/SDM/SDM.htm - Windows Internet Explorer". The address bar shows "http://172.17.215.70/SDM/SDM.htm". The interface includes a navigation menu on the left with items like "사용자 관리", "서버 관리", "설정", "이벤트", "모니터링", "성방송", "녹화채널", "녹화", "방송단말", "방송구성", "DEMO", "VBT1000\_TS", "방송소스", and "VBS5000\_TS". The main content area is titled "방송 / 녹화 예약" and contains a "예약 목록" table with one entry "Schedule". Below this is a "예약표" (schedule grid) showing a weekly layout with shaded cells indicating broadcast times. The grid is as follows:

요일 \ 시간	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Mon																									
Tue																									
Wed																									
Thu																									
Fri																									
Sat																									
Sun																									
Holiday																									

Below the grid, there are fields for "년월일" (2011-02-10), "날짜" (Date), and "진행시간" (Duration). The "시작시간" (Start Time) is 00:00 and the "종료시간" (End Time) is 00:00. The interface also shows the date and time "2011-02-10 오후 7:08:38" and the version "Version 2.1.4057".

# Broadcasting Schedule Management

The screenshot displays the AddPac Smart Broadcast Manager web interface. The browser window title is "http://172.17.215.70/SDM/SDM.htm - Windows Internet Explorer". The address bar shows "http://172.17.215.70/SDM/SDM.htm". The interface features a navigation tree on the left with the following items:

- 172.17.215.70
  - 사용자 관리
    - 사용자
    - 그룹
  - 서버 관리
    - 일반설정
    - 방송/녹화
    - 이벤트
    - 모니터링
  - 채널
    - 생방송
    - 녹화채널
    - 녹화
    - 방송단말
    - 방송구성
  - DEMO
    - VBT1000\_TS
  - 방송소스
    - VBS5000\_TS

The main content area is titled "방송 / 녹화 예약" and contains sub-tabs for "예약설정", "공휴일 설정", "녹화현황", and "녹화이력". The "공휴일 설정" tab is active, showing a calendar for March 2011 and a table of public holidays.

일	월	화	수	목	금	토
27	28	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

Below the calendar, there is a "공휴일 목록" table:

공휴일	반복 패턴
2011-03-01	none

At the bottom of the interface, there is a "반복 패턴" dropdown menu set to "None" and a "적용" button. The status bar at the bottom shows the date "2011-02-10 오후 7:09:59", version "Version 2.1.4057", and a "root" directory indicator.



# Recording File Status Display

The screenshot displays the AddPac Smart Broadcast Manager web interface. The browser window title is "http://172.17.215.70/SDM/SDM.htm - Windows Internet Explorer". The address bar shows "http://172.17.215.70/SDM/SDM.htm". The interface includes a navigation menu on the left with items like "사용자 관리", "그룹", "서버 관리", "일반설정", "방송/녹화", "이벤트", "모니터링", "채널", "생방송", "녹화재상", "녹화", "방송단말", "방송구성", "DEMO", "VB1000\_TS", "방송소스", and "VBS5000\_TS". The main content area shows a table with the following data:

방송소스 그룹	녹화 크기	녹화 개수	녹화 비율 (%)
/	9,166,874 KB	76	100%
Total:	9,166,874 KB	76	

The status bar at the bottom indicates the date and time "2011-02-10 오후 7:18:52", the version "Version 2.1.4057", the user "root", and the site status "신뢰할 수 있는 사이트".

# Recording File History Display

The screenshot displays the AddPac Smart Broadcast Manager web interface. The main content area shows a table of recording file history. The table has the following columns: 방송소스명 (Broadcast Source Name), 녹화시작시간 (Recording Start Time), 녹화종료시간 (Recording End Time), 녹화시간 (Recording Duration), 녹화설명 (Recording Description), 방송소스 그룹 (Broadcast Source Group), and 사용자 ID (User ID). The table lists multiple recording entries for the source 'VBSS5000\_TS'.

방송소스명	녹화시작시간	녹화종료시간	녹화시간	녹화설명	방송소스 그룹	사용자 ID
VBSS5000_TS	2011-02-09 21:25:25	2011-02-09 21:26:10	00:00:45		/	root
VBSS5000_TS	2011-02-09 21:26:33	2011-02-09 21:29:59	00:03:26		/	root
VBSS5000_TS	2011-02-09 21:30:00	2011-02-09 21:59:59	00:29:59		/	root
VBSS5000_TS	2011-02-09 22:00:00	2011-02-09 22:29:59	00:29:59		/	root
VBSS5000_TS	2011-02-09 22:30:00	2011-02-09 22:59:59	00:29:59		/	root
VBSS5000_TS	2011-02-09 23:00:00	2011-02-09 23:29:59	00:29:59		/	root
VBSS5000_TS	2011-02-09 23:30:00	2011-02-09 23:59:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 00:00:00	2011-02-10 00:30:00	00:30:00		/	root
VBSS5000_TS	2011-02-10 00:30:00	2011-02-10 00:59:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 01:00:00	2011-02-10 01:29:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 01:30:00	2011-02-10 01:59:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 02:00:00	2011-02-10 02:29:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 02:30:00	2011-02-10 02:59:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 03:00:00	2011-02-10 03:29:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 03:30:00	2011-02-10 04:00:00	00:30:00		/	root
VBSS5000_TS	2011-02-10 04:00:00	2011-02-10 04:29:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 04:30:00	2011-02-10 04:59:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 05:00:00	2011-02-10 05:29:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 05:30:00	2011-02-10 05:59:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 06:00:00	2011-02-10 06:29:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 06:30:00	2011-02-10 06:59:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 07:00:00	2011-02-10 07:30:00	00:30:00		/	root
VBSS5000_TS	2011-02-10 07:30:00	2011-02-10 07:59:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 08:00:00	2011-02-10 08:30:00	00:30:00		/	root
VBSS5000_TS	2011-02-10 08:30:00	2011-02-10 08:59:59	00:29:59		/	root
VBSS5000_TS	2011-02-10 09:00:00	2011-02-10 09:09:23	00:09:23		/	root
VBSS5000_TS	2011-02-10 09:09:42	2011-02-10 09:09:59	00:00:17	Recording_110210	/	root
VBSS5000_TS	2011-02-10 09:10:00	2011-02-10 09:19:59	00:09:59	Recording_110210	/	root
VBSS5000_TS	2011-02-10 09:20:00	2011-02-10 09:30:00	00:10:00	Recording_110210	/	root
VBSS5000_TS	2011-02-10 09:30:00	2011-02-10 09:39:59	00:09:59	Recording_110210	/	root
VBSS5000_TS	2011-02-10 09:40:00	2011-02-10 09:50:00	00:10:00	Recording_110210	/	root
VBSS5000_TS	2011-02-10 09:50:00	2011-02-10 09:51:41	00:01:41	Recording_110210	/	root
VBSS5000_TS	2011-02-10 09:57:34	2011-02-10 09:59:53	00:02:19	recording	/	root
VBSS5000_TS	2011-02-10 10:19:54	2011-02-10 10:19:59	00:00:05	recording	/	root
VBSS5000_TS	2011-02-10 10:20:00	2011-02-10 10:29:42	00:09:42	recording	/	root
VBSS5000_TS	2011-02-10 10:34:02	2011-02-10 10:36:13	00:02:11		/	root

전체 62 결과가 검색되었습니다.

# Live Session Monitoring

The screenshot displays the AddPac Smart Broadcast Manager web interface. The browser window title is "http://172.17.215.70/SDM/SDM.htm - Windows Internet Explorer". The address bar shows "http://172.17.215.70/SDM/SDM.htm". The interface includes a navigation menu on the left with options like "사용자 관리", "그룹", "서버 관리", "일반설정", "방송/녹화", "이벤트", "모니터링", "채널", "생방송", "녹화", "방송단말", "방송구성", "DEMO", "VBT1000\_TS", "방송소스", and "VBS5000\_TS". The main content area features a table with the following columns: "장비", "모델명", "IP주소", "라이브 설정", and "클라이언트 수". The table contains one entry for "VBS5000\_TS" with IP "172.17.215.80" and "1280x720 30 fps [8192K]". Below this is a section titled "클라이언트 목록" with columns "사용자 ID", "사용자 IP주소", and "접속 시간". The status bar at the bottom indicates "2011-02-10 오후 7:21:17", "Version 2.1.4057", "root", and "생방송 : 1 클라이언트 : 1".

장비	모델명	IP주소	라이브 설정	클라이언트 수
VBS5000_TS		172.17.215.80	1280x720 30 fps [8192K]	1

사용자 ID	사용자 IP주소	접속 시간
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# On Demand Session Monitoring

The screenshot displays the AddPac Smart Broadcast Manager web interface. The browser window shows the URL `http://172.17.215.70/SDM/SDM.htm`. The interface includes a navigation tree on the left and a main data table.

방송소스	시작 시간	진행시간	정보	서버 주소	사용자 ID	사용자 IP주소	접속 시간
unknown	2011-02-10 19:22:14	00:29:59	1280X720 ...	172.17.215.70	MediaPL...	172.17.1.115	2011-02-10 19:22:14
unknown	2011-02-10 19:22:03	00:09:59	1280X720 ...	172.17.215.70	MediaPL...	172.17.1.115	2011-02-10 19:22:03

The interface also shows a navigation tree on the left with items like '사용자 관리', '시버 관리', '일반설정', '방송/녹화', '이벤트', '모니터링', '채널', '생방송', '녹화', '방송단말', '방송구성', 'DEMO', 'VBT1000\_TS', and '방송소스', 'VBS5000\_TS'. The status bar at the bottom indicates 'Version 2.1.4057' and 'root'.

# Recording Session Monitoring

The screenshot displays the AddPac Smart Broadcast Manager web interface. The browser window title is "http://172.17.215.70/SDM/SDM.htm - Windows Internet Explorer". The page header includes the AddPac logo and "Smart Broadcast Manager". A navigation menu on the left lists various server management options. The main content area features a table with the following columns: "방송소스" (Broadcast Source), "녹화 시간" (Recording Time), "녹화 정보" (Recording Info), "서버 IP주소" (Server IP Address), "진행 시간" (Progress Time), and "설명" (Description). The table contains one entry for "VBS5000\_TS" with a recording time of "2011-02-10 19:20:00" and a progress time of "00:03:02".

방송소스	녹화 시간	녹화 정보	서버 IP주소	진행 시간	설명
VBS5000_TS	2011-02-10 19:20:00	1280x720 30 fps [8192k]	172.17.215.70	00:03:02	

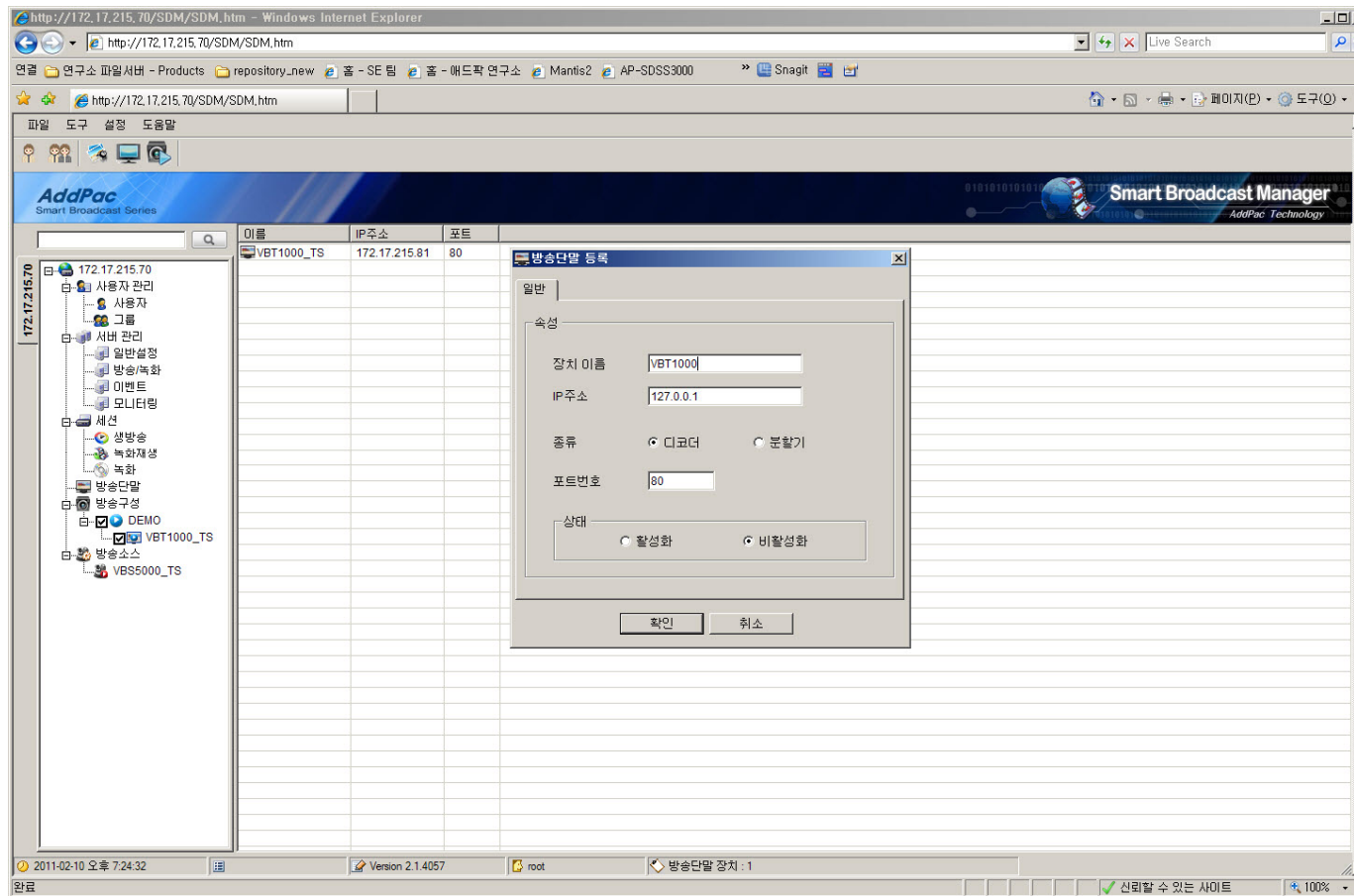
# Broadcasting Terminal Registration

The screenshot displays the AddPac Smart Broadcast Manager web interface. The browser window title is "http://172.17.215.70/SDM/SDM.htm - Windows Internet Explorer". The address bar shows "http://172.17.215.70/SDM/SDM.htm". The interface includes a navigation menu on the left with options like "사용자 관리", "서버 관리", "일반설정", "방송/녹화", "이벤트", "모니터링", "세션", "생방송", "녹화재생", "녹화", "방송단말", "방송구성", "DEMO", "VBT1000\_TS", "방송소스", and "VBS5000\_TS". The main content area features a table with the following data:

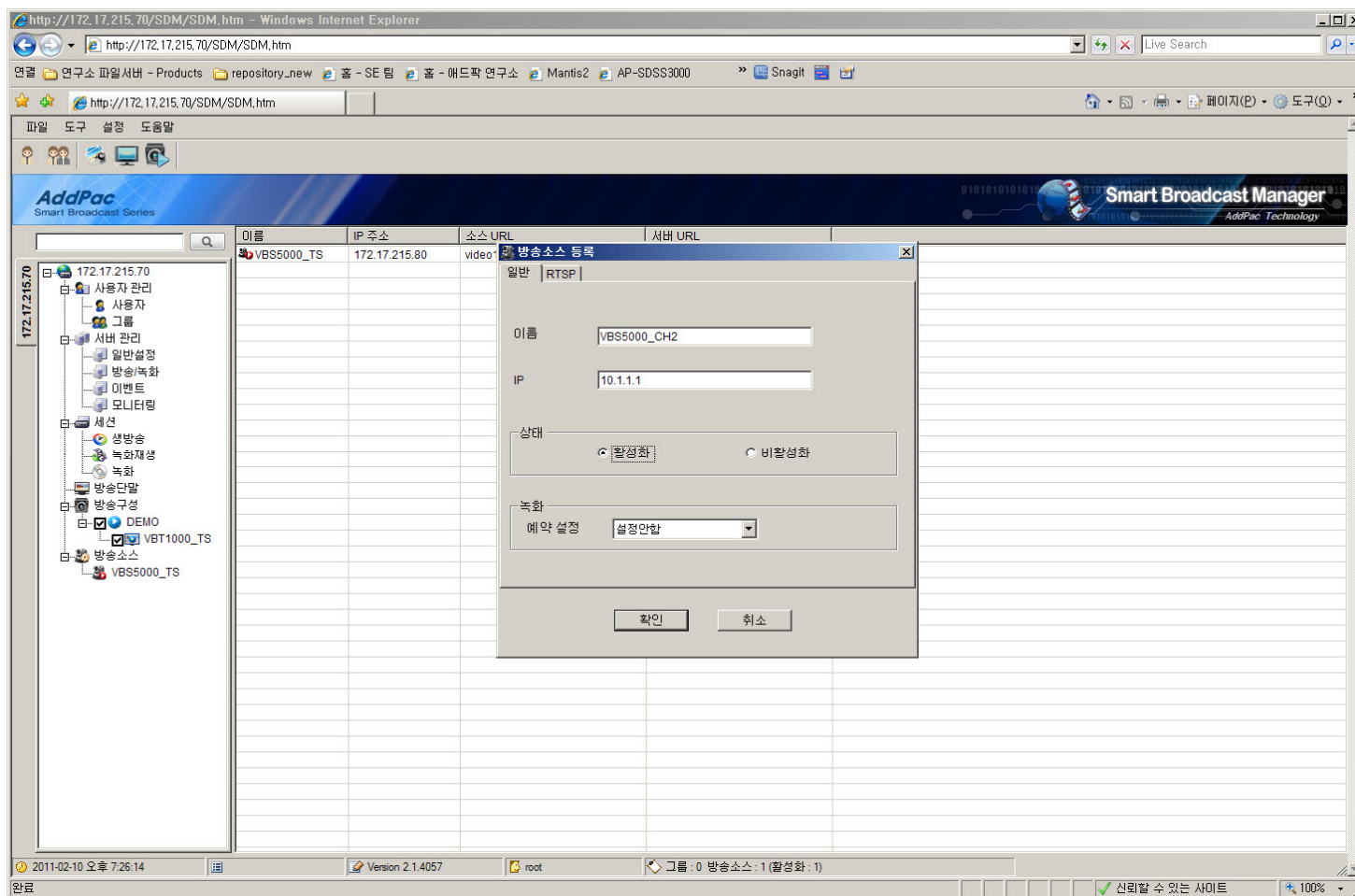
이름	IP주소	포트
VBT1000_TS	172.17.215.81	80

A tooltip labeled "방송단말 등록" is visible over the table. The status bar at the bottom indicates "2011-02-10 오후 7:23:40", "Version 2.1.4057", "root", and "방송단말 장치 : 1".

# Broadcasting Terminal Registration

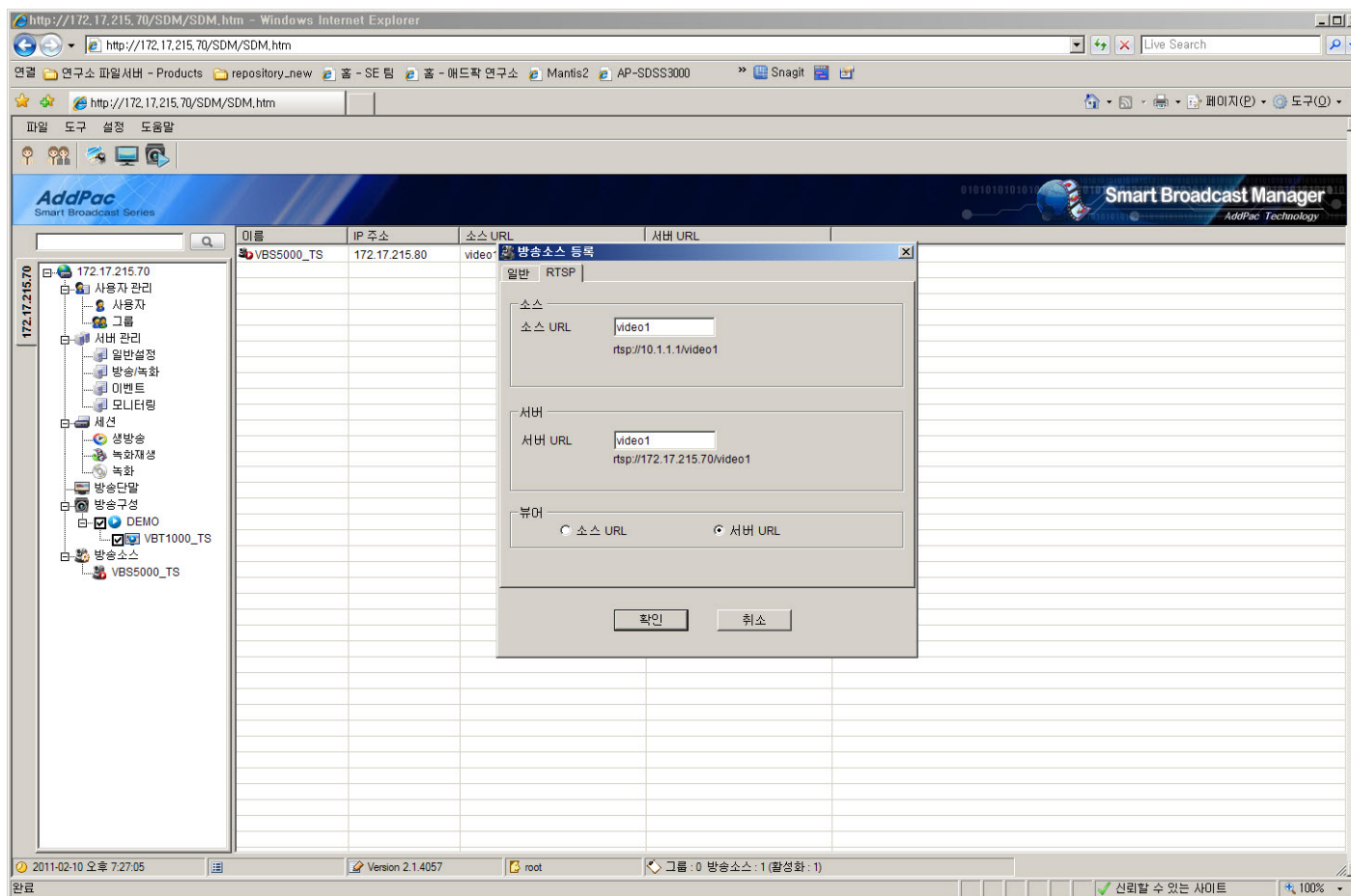


# Broadcasting Media Source Registration

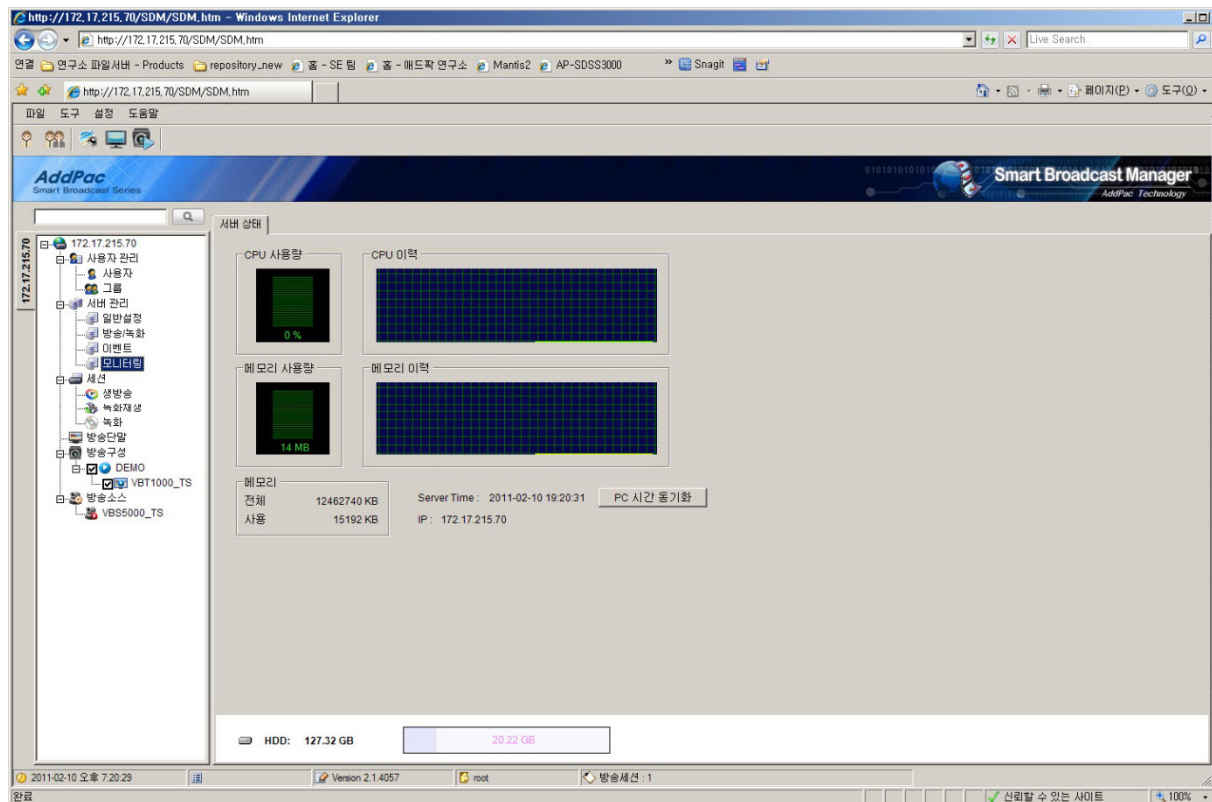




# Broadcasting Media Source Registration



# Broadcasting Server Status Monitoring





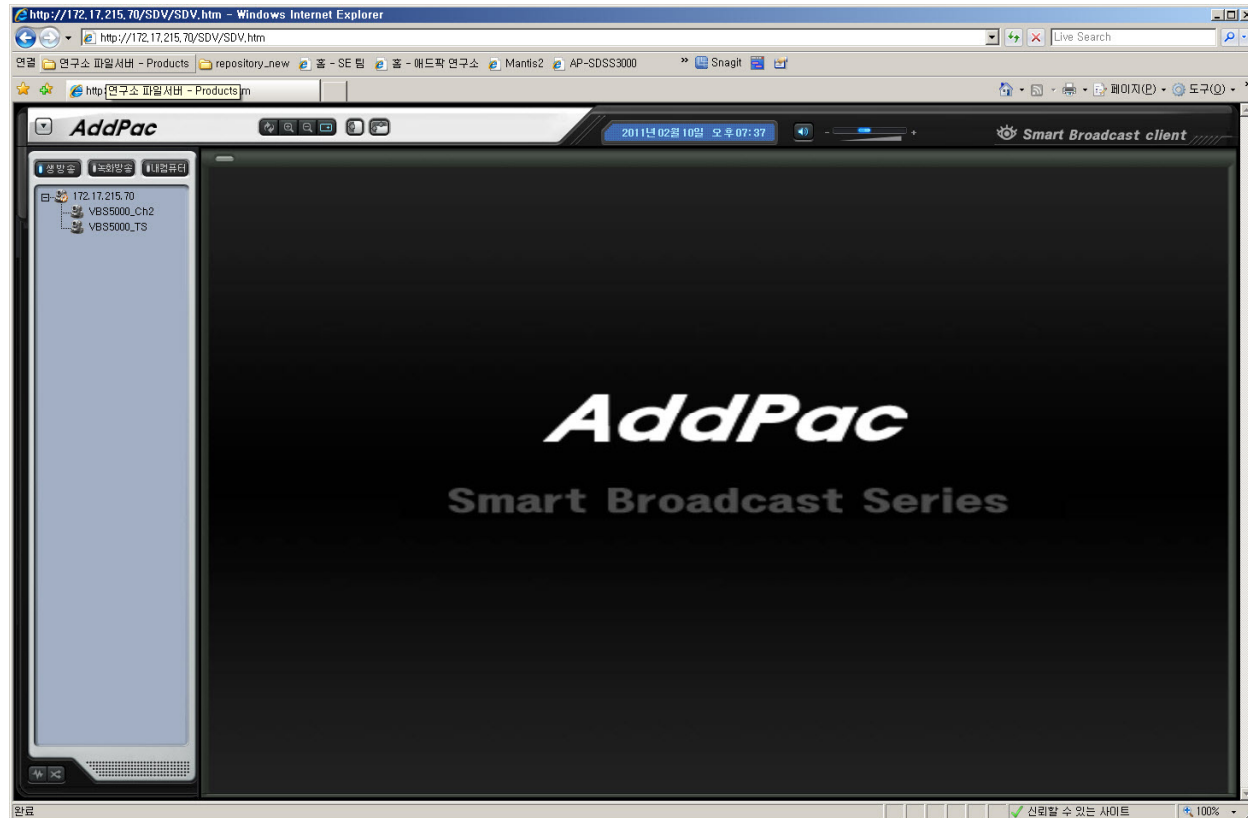
# AP-SBC

## Smart Broadcasting Client

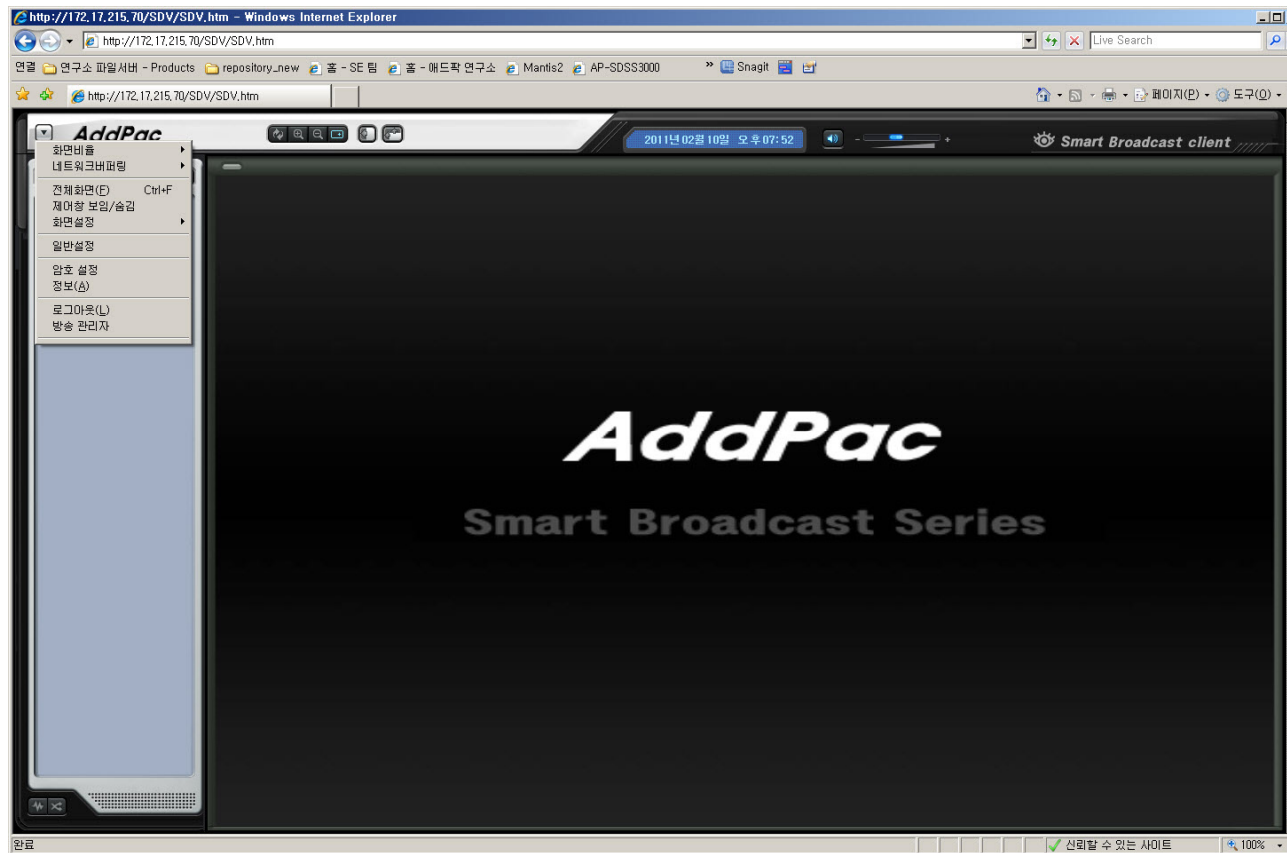
# SBC Main Features

- Web based Smart Broadcasting Client
- Live Broadcasting Client
- On Demand Broadcasting Client
- Local Broadcasting Client
- Video Display Layout Control (Aspect Ratio)
- Full Size Display
- Network Video Buffering Control
- Recording File Search for On-Demand Service
- File Drag & Play Service
- Video Broadcasting Information Display

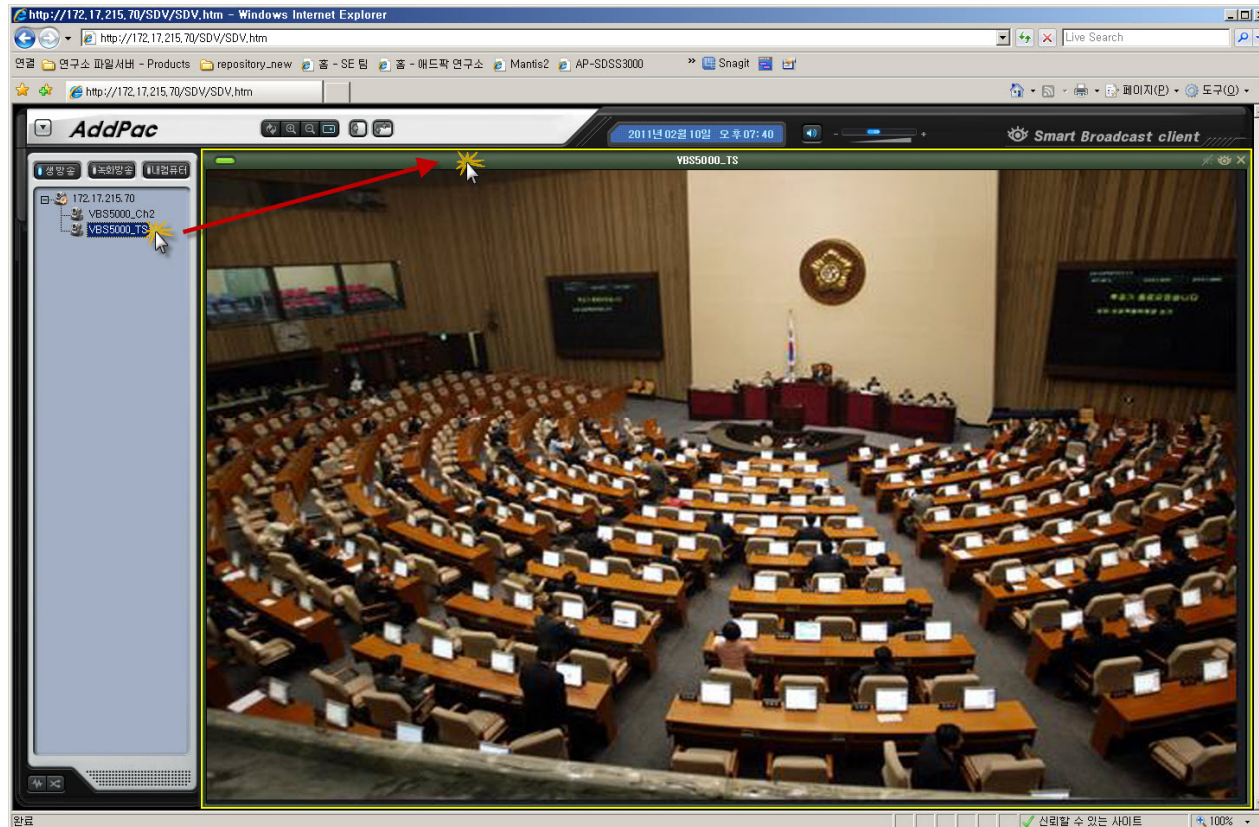
# SBC Display Layout



# SBC Control Menu



# Live Broadcasting



# Recording File Search for On-Demand

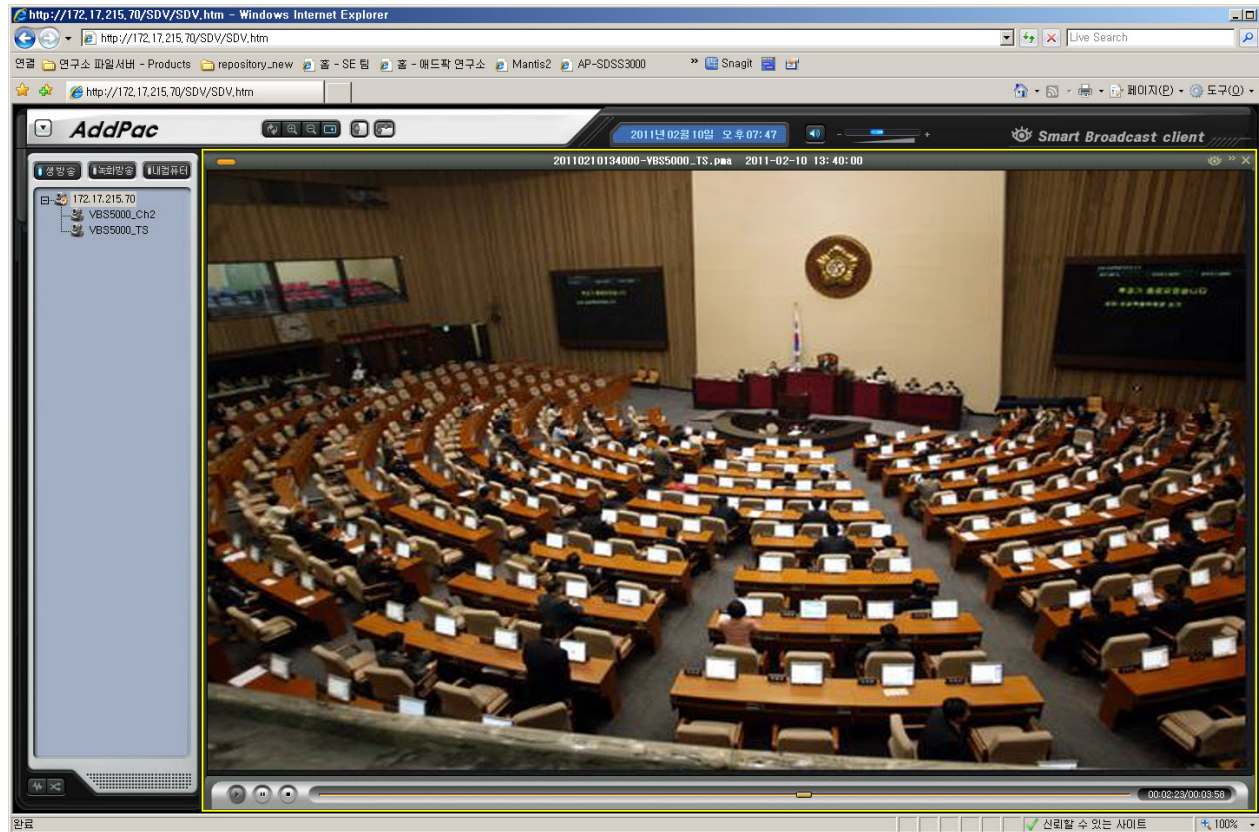
The screenshot displays the AddPac Smart Broadcast client interface. The main window shows a search results table for recording files. The table has the following columns: 카메라 이름 (Camera Name), 녹화시작시간 (Recording Start Time), 녹화종료시간 (Recording End Time), 녹화시간 (Recording Duration), and 녹화설명 (Recording Description). The search results are filtered to show files from camera VBS5000\_TS.

카메라 이름	녹화시작시간	녹화종료시간	녹화시간	녹화설명
VBS5000_TS	2011-02-09 21:25:25	2011-02-09 21:26:10	00:00:45	
VBS5000_TS	2011-02-09 21:26:33	2011-02-09 21:29:59	00:03:26	
VBS5000_TS	2011-02-09 21:30:00	2011-02-09 21:59:59	00:29:59	
VBS5000_TS	2011-02-09 22:00:00	2011-02-09 22:29:59	00:29:59	
VBS5000_TS	2011-02-09 22:30:00	2011-02-09 22:59:59	00:29:59	
VBS5000_TS	2011-02-09 23:00:00	2011-02-09 23:29:59	00:29:59	
VBS5000_TS	2011-02-09 23:30:00	2011-02-09 23:59:59	00:29:59	
VBS5000_TS	2011-02-10 00:00:00	2011-02-10 00:30:00	00:30:00	
VBS5000_TS	2011-02-10 00:30:00	2011-02-10 00:59:59	00:29:59	
VBS5000_TS	2011-02-10 01:00:00	2011-02-10 01:29:59	00:29:59	
VBS5000_TS	2011-02-10 01:30:00	2011-02-10 01:59:59	00:29:59	
VBS5000_TS	2011-02-10 02:00:00	2011-02-10 02:29:59	00:29:59	
VBS5000_TS	2011-02-10 02:30:00	2011-02-10 02:59:59	00:29:59	
VBS5000_TS	2011-02-10 03:00:00	2011-02-10 03:29:59	00:29:59	
VBS5000_TS	2011-02-10 03:30:00	2011-02-10 04:00:00	00:30:00	
VBS5000_TS	2011-02-10 04:00:00	2011-02-10 04:29:59	00:29:59	
VBS5000_TS	2011-02-10 04:30:00	2011-02-10 04:59:59	00:29:59	
VBS5000_TS	2011-02-10 05:00:00	2011-02-10 05:29:59	00:29:59	
VBS5000_TS	2011-02-10 05:30:00	2011-02-10 05:59:59	00:29:59	
VBS5000_TS	2011-02-10 06:00:00	2011-02-10 06:29:59	00:29:59	
VBS5000_TS	2011-02-10 06:30:00	2011-02-10 06:59:59	00:29:59	
VBS5000_TS	2011-02-10 07:00:00	2011-02-10 07:30:00	00:30:00	
VBS5000_TS	2011-02-10 07:30:00	2011-02-10 07:59:59	00:29:59	
VBS5000_TS	2011-02-10 08:00:00	2011-02-10 08:30:00	00:30:00	
VBS5000_TS	2011-02-10 08:30:00	2011-02-10 08:59:59	00:29:59	

전체 65 결과가 검색되었습니다.

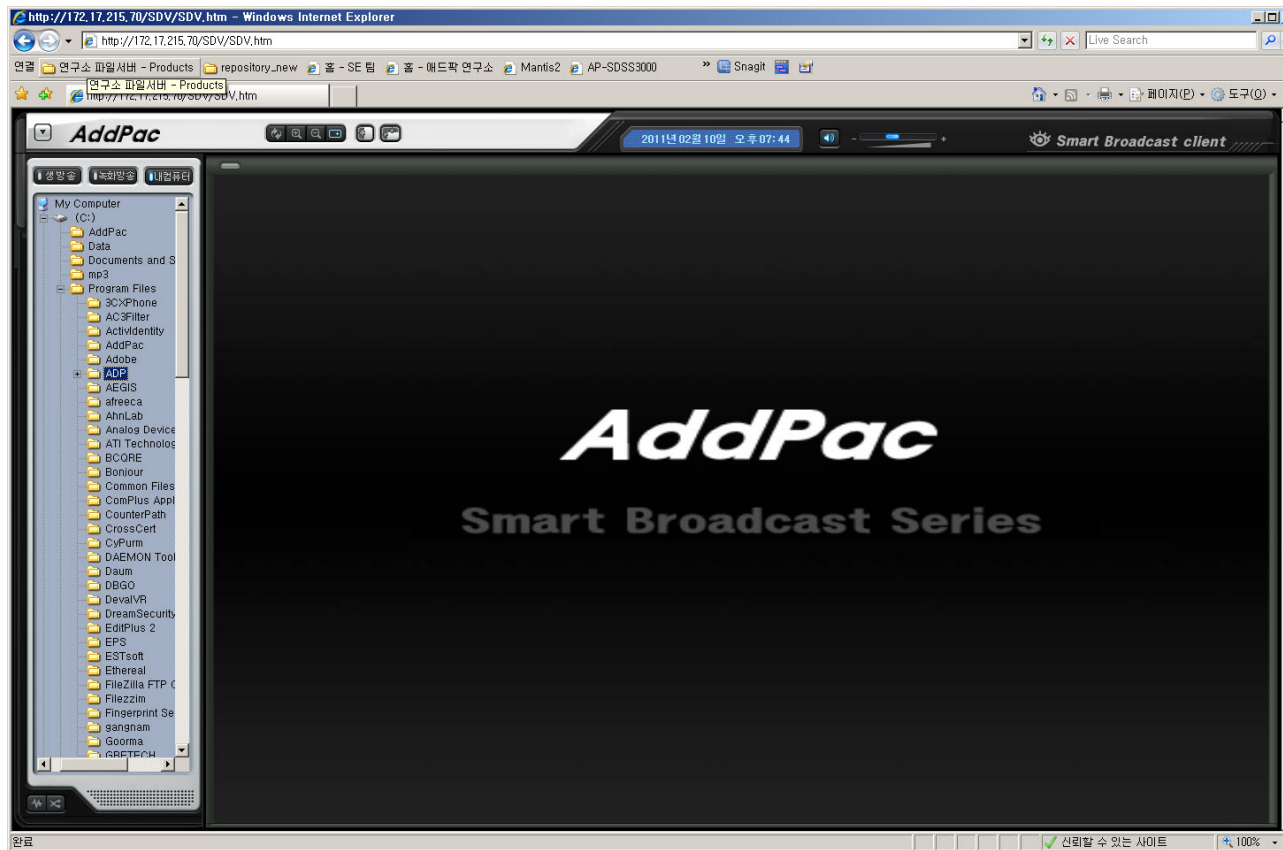


# On-Demand Video Play





# Local File Video Play





# Thank you!

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