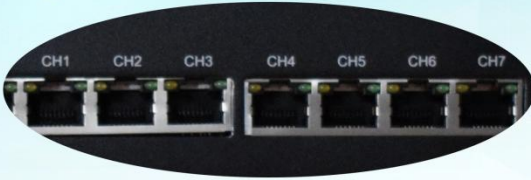


DCM750

DIBSYS

IPTV Gateway IP protocol conversion scenarios

HTTP, UDP, RTP, RTSP, HLS, SRT



DCM750 is a powerful, yet low power consumption, rack-mount IPTV Gateway Controller& Control Interface for 24/7 operation. Its modular design enables integrators and operators to select from various protocol to customise operation and on-going service.

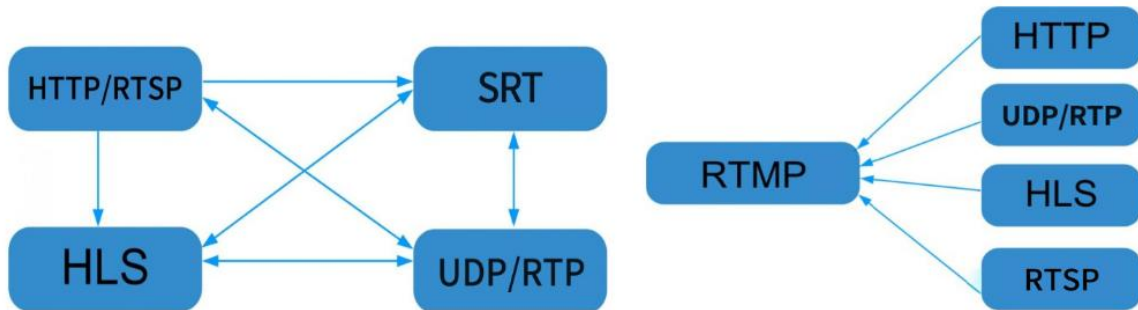
It can convert the broadcast network IP stream over HTTP, SRT, UDP, RTP, RTSP and HLS and TS file into HTTP, UDP, SRT, HLS and RTMP protocol. The platform can achieve the integration by receiving a variety of commercial streaming media services, and can provide streaming media services directly.

Designed for the centralised control of Android STB's the control protocol conversion function acts, used for the protocol conversion scenarios and streaming media distribution scenarios, to the commonly deployed STB's in the hotel, hospitality, corporate, education and entertainment sectors.

Key Features

- low power consumption, rack-mount design
- 8/10 Data ports(DCM750):
 - First Data port: IP out over HTTP, UDP, SRT,HLS and RTMP
 - Data CH1~CH7/CH9 ports: IP in over HTTP, UDP, RTP, SRT, RTSP and HLS
 - IP out over HTTP, SRT, HLS and RTMP (Unicast)
- 8 Data ports(DCM750Plus):
 - First Data port: IP out over HTTP, UDP,SRT, HLS and RTMP
 - Data CH1~CH7 ports: IP in over HTTP, UDP, SRT,RTP, RTSP and HLS
 - IP out over HTTP, SRT, HLS and RTMP (Unicast)
- UDP/RTP input support MPTS (bitrate $\leq 30M$)/SPTS
- TS files uploading through Web management
- IP anti- jitter function
- adding scrolling caption, welcome words, boot image and boot video
- Support downloading Dibsys IPTV APK directly from this device
- Up to **80 HD/SD programs (DCM750)**, or **150 HD/SD programs(DCM750Plus)** (Bitrate: 2Mbps) When HTTP/RTP/RTSP/HLS is converted into UDP (Multicast), **suggest maximum 80% CPU utilization**
- Support program playing with APK downloaded android STB and TV
- Control via web-based NMS management through DATA port

Protocol conversion



TECHNICAL SPECIFICATIONS

Input

CH1 ~ CH9(1000M)
 over HTTP, UDP(MPTS/SPTS), RTP(MPTS/SPTS), RTSP, SRT (over UDP, payload: mpeg TS) and HLS
Note: DCM750 only support SPTS in
 TS files uploading through Web management

IP Output

Data port (1000M)
 over SRT, HTTP (Unicast), UDP(SPTS, Multicast) HLS and RTMP (Program source should be H.264 and AAC encoding)

SYSTEM

Memory 4G
 Solid-State Disk(SSD) 16G, 60G optional
 Channel switching time HTTP (1-3s), HLS (0.4-0.7s)
 Function scrolling caption
 welcome words
 boot image

boot video (only in IP out application and the STB/Android TV installed DIBSYS IPTV APK)
 Play programs with APK downloaded android STB and TV
 web-based NMS
 Bitrate 2Mbps each programs
 SRT/HTTP/RTP/RTSP/HLS is converted into UDP (Multicast), the actual application shall prevail, and **suggest maximum 80% CPU utilization**

Environment

Power Supply AC 100V±10% 50/60Hz or AC 220V±10%, 50/60Hz
 Dimension 482mm×324mm×44mm
 Operating temperature -10 ~ 50°C
 Storage temperature -10 ~ 75°C
 Humidity 10 ~ 90% non-condensed
 Weight 6KG

Ordering Information

Protocol conversion	Programs	Bitrate	Terminals		CPU utilization
			DCM750	DCM750Plus	
HTTP/RTP/RTSP/HLS to UDP	80	2M	/	/	55%
HTTP to HLS	50	2M	200	400	46%
HTTP to HTTP	30	2M	150	300	80%
	50	2M	80	160	80%
UDP to HTTP	50	2M	120	240	50%
UDP to HLS	50	2M	200	400	50%
	80	2M	150	300	72%

Model	Feature	Memory	CPU	Solid-State Disk(SSD)	Mechanical Hard Disk
DCM750	Gateway	4G	1037	16G (60G optional)	x
DCM750Plus	Gateway	4G	i5/i7	16G (60G optional)	x

WEB GUI

Streaming Media → Protocol Conversion

Current Position: Streaming Media > Protocol Conversion
 Input protocol: HLS, HTTP, RTP, UDP, RTSP(rtp over udp,payload MPEGTS);Output protocol: HLS, UDR, RTMP(RTMP output is only supported when input program source are H.264 and AAC encoding)

▶ start distribution ▶ stop distribution ▶ stop all Batch Setting All ▶ template download ▶ import programs ▶ export programs + add program ▶ batch delete ▶ program sorting

number	status	program name	input NIC	program type	input address	output address	realtime rate	operate
1	✓	DXTV-15	eth4 [1000Mbps] full duplex self-adaption	normal	rtp://239.93.0.68:5140	http://192.168.202.136:8060/hls/114/114.m3u8	2776 Kbps	✎ ✕
2	✓	DXTV-14	eth4 [1000Mbps] full duplex self-adaption	normal	rtp://239.93.0.67:5140	http://192.168.202.136:8060/hls/113/113.m3u8	2807 Kbps	✎ ✕
3	✓	DXTV-13	eth4 [1000Mbps] full duplex self-adaption	normal	rtp://239.93.0.66:5140	http://192.168.202.136:8060/hls/112/112.m3u8	2843 Kbps	✎ ✕
4	✓	DXTV-12	eth4 [1000Mbps] full duplex self-adaption	normal	rtp://239.93.0.65:5140	http://192.168.202.136:8060/hls/111/111.m3u8	2802 Kbps	✎ ✕
5	✓	DXTV-11	eth4 [1000Mbps] full duplex self-adaption	normal	rtp://239.93.0.3:5140	http://192.168.202.136:8060/hls/110/110.m3u8	2554 Kbps	✎ ✕
6	✓	DXTV-10	eth4 [1000Mbps] full duplex self-adaption	normal	rtp://239.93.0.63:5140	http://192.168.202.136:8060/hls/109/109.m3u8	2602 Kbps	✎ ✕
7	✓	DXTV-9	eth4 [1000Mbps] full duplex self-adaption	normal	rtp://239.93.1.2:5140	http://192.168.202.136:8060/hls/108/108.m3u8	2621 Kbps	✎ ✕
8	✓	DXTV-8	eth4 [1000Mbps] full duplex self-adaption	normal	rtp://239.93.0.112:5140	http://192.168.202.136:8060/hls/107/107.m3u8	2565 Kbps	✎ ✕

total program: 50, number of distribution: 50

System Information

Current Position: Sys Information
 running process number: 35 blocking process number: 0

CPU usage rate

CPU usage record

total memory: 4 GB available memory: 2 GB free memory: 2 GB shared memory: 244 MB

Memory usage distribution

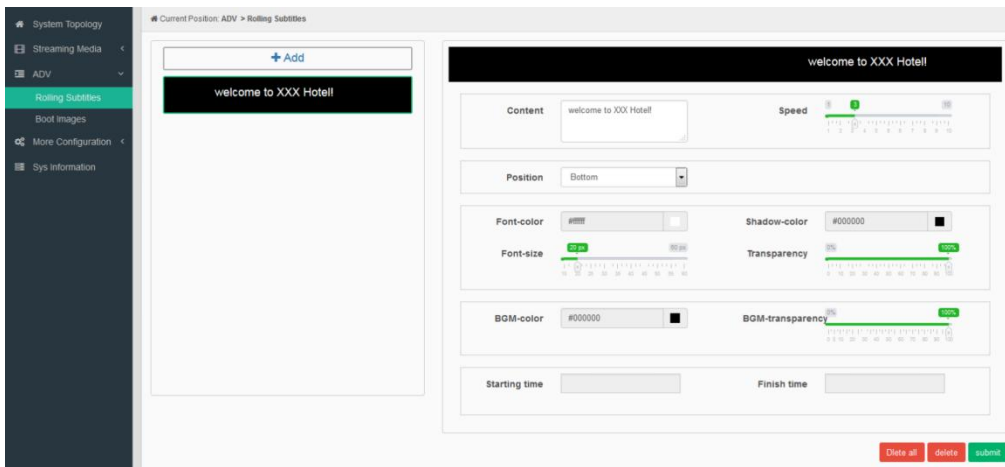
buffer: 15 MB cache: 437 MB total swap partition capacity: 4 MB free swap partition capacity: 4 MB

Memory usage record

NIC	IP/MAC	Data packet	Data traffic
eth0 disconnected	192.168.200.136 00:90:27:EO:E3:97	receive:0,error:0,abandon:0 send:0,error:0,abandon:0	↓ receive 0/s ,total:0 ↑ send 0/s ,total:0
eth1 disconnected	192.168.201.136 00:90:27:EO:E3:98	receive:0,error:0,abandon:0 send:0,error:0,abandon:0	↓ receive 0/s ,total:0 ↑ send 0/s ,total:0
eth2 [1000Mbps] full duplex self-adaption	192.168.202.136 00:90:27:EO:E3:99	receive:714725,error:0,abandon:0 send:4853843,error:0,abandon:0	↓ receive 0/s ,total:408 Mb ↑ send 0/s ,total:56 Gb
eth3 disconnected	192.168.203.136 00:90:27:EO:E3:9A	receive:0,error:0,abandon:0 send:0,error:0,abandon:0	↓ receive 0/s ,total:0 ↑ send 0/s ,total:0
eth4 [1000Mbps] full duplex self-adaption	192.168.204.136 00:90:27:EO:E3:9B	receive:101403017,error:0,abandon:23419 send:1748,error:0,abandon:0	↓ receive 48 Mb/s ,total:1040 Gb ↑ send 1536 b/s ,total:1008 Kb
eth5 disconnected	192.168.205.136 00:90:27:EO:E3:9C	receive:0,error:0,abandon:0 send:0,error:0,abandon:0	↓ receive 0/s ,total:0 ↑ send 0/s ,total:0
eth6 disconnected	192.168.206.136 00:90:27:EO:E3:9D	receive:0,error:0,abandon:0 send:0,error:0,abandon:0	↓ receive 0/s ,total:0 ↑ send 0/s ,total:0
eth7 [1000Mbps] full duplex self-adaption	192.168.207.136 00:90:27:EO:E3:9E	receive:6983605,error:0,abandon:611 send:240845,error:0,abandon:0	↓ receive 168 Kb/s ,total:4152 Mb ↑ send 40 Kb/s ,total:2176 Mb

Hard disk partition	Hard disk total capacity	Spare capacity	Used capacity	Used ratio
/	10 GB	4 GB	6 GB	57.72%
/boot/efi	511 MB	506 MB	5 MB	0.90%
/dev	2 GB	2 GB	0	0.00%
/dev/shm	2 GB	2 GB	230 MB	11.54%
/run	385 MB	379 MB	6 MB	1.53%
/run/lock	5 MB	5 MB	0	0.00%
/run/lxcfs/controllers	100 KB	100 KB	0	0.00%
/sys/fs/cgroup	2 GB	2 GB	0	0.00%

ADV→ Rolling Subtitles



Application

- IPTV Gateway Controller& Control
- Contribution and Distribution
- Protocol conversion scenarios

