

A decorative graphic on the left side of the slide, composed of a collage of images within a geometric, triangular pattern. The images include a modern glass skyscraper, a hand holding a pen over a document, and another view of a skyscraper. The colors of the triangles are in shades of blue, green, and grey.

HEVC 4K upgrade in DVB-T2 Headend Video Solution

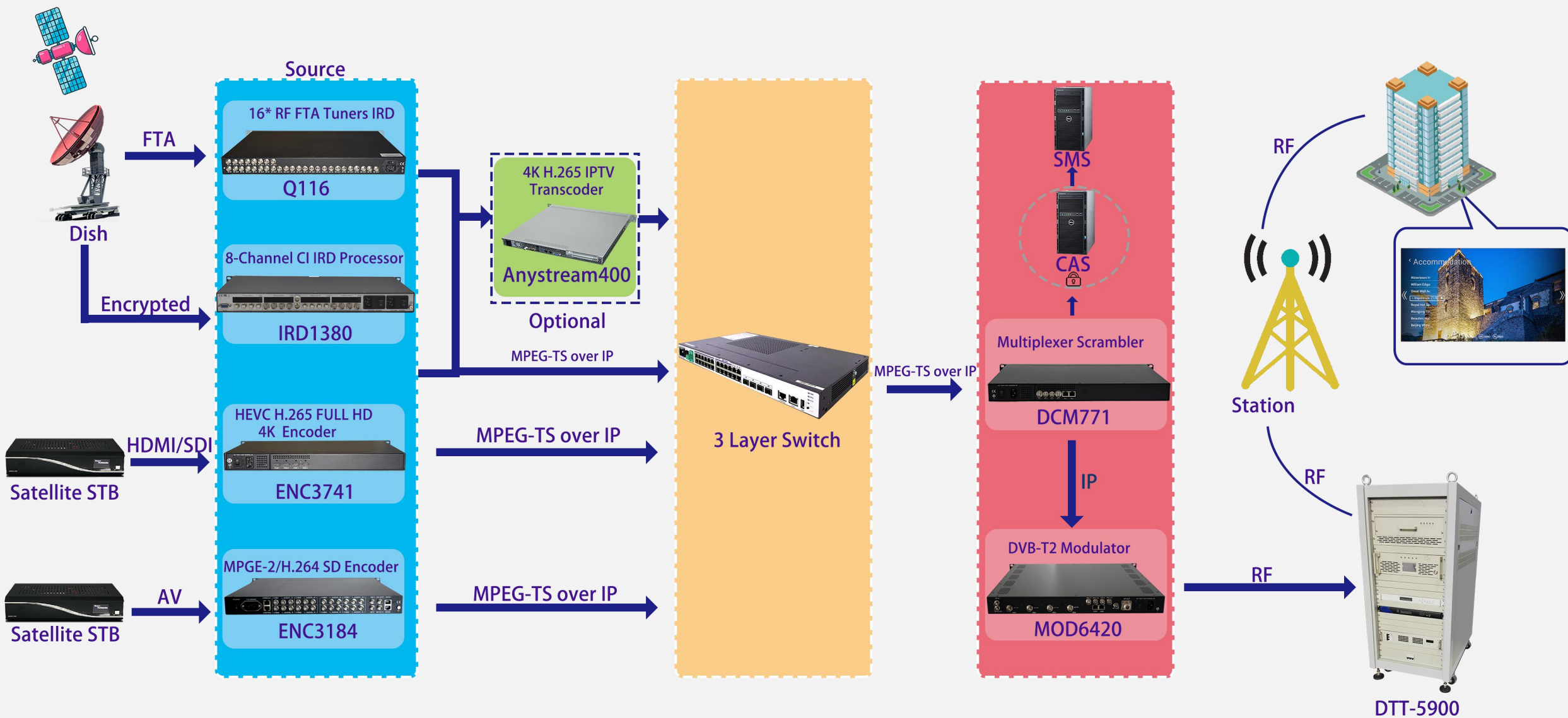
► Dibsys HEVC 4K DVB-T2 distribution solution

- As broadcasters migrate to UHD/4K and seek to deliver an enhanced user experience, they are also under constant pressure to offer more services per multiplex as a means for reducing transmission costs. Dibsys, comprehensive DVB-T2 distribution solution can help Digital Terrestrial Television (DTT) operators overcome these challenges by combining high compression efficiency with the ability to deliver outstanding video and audio regardless of the format and standard.

► What does DIBSYS help to setup DVB-T2 Solution?

- Based on the latest advancements in digital video compression technology including FTA/Encrypted channels receiving, UHD/HD/SD Encoding, Multiplexing and Scrambling, DVB-T2 Modulation and transmission.
- DIBSYS DVB-T/T2 solution is flexible and scalable, and can be tuned to fit any customer-specific requirement. Possessing the widest DVB-T/T2 experience in the market, with headends installed in more than 60 countries, Dibsyes is the ideal company to help you overcome today's complex business challenges while delivering low total cost of ownership.

▶ DVB-T2 Headend Solution Workflow



▶ FTA Receiver Q116Series DVB-S2 FTA IRD

- up to 16 tuner DVB-S2 input, optional ISDB-T, DVB-C, DVB-T/T2, DTMB, ATSC
- DVB-S2 up to 16apsk, 32apsk (optional)
- 512*SPTS and 4*MPTS and N*tuner passthrough Output
- Operation via LCD Screen and Web Management



► Encrypted Receiver *IRD1380 8-Channel CI IRD Processor*

- 8xTuners Input, Supports variety of input options DVB-T2/T/S2X/S2/S/C/DTMB/ATSC
- Supports DVB-S2 Input Stream Identifier (ISI, optional) and DVB-T2 Multi PLP and SFN MIP pass through
- 8xDVB-CI Slots, multi-program decryption
- support Nagravision, Conax, Videoguard, Viaccess, Irdeto, Mediaguard CAS
- BISS-1 and BISS-E decryption



▶ HEVC IPTV Transcoder *Anystream400*

- Telco Quality, Highly Reliable
- Process 25*SD or 12*720p or 8*Full HD or 4K profiles transcoding
- MPEG/H.264-to- H.264/HEVC(H.265) video encoding
- RTMP, HTTP Live Streaming, Pull/Push HTTP/RTSP, RTMP, UDP, SDP
- Picture-in-picture (PIP) operation supported
- Support multiscreen output function, and a variety of terminals (iPhone, iPad, Android etc.)
- AES encryption
- Support image zoom



► HD/SDI 4K Encoder ENC3741

12 channels HEVC H.265 FULL HD 4K Encoder

- 12 HDMI video channels (4 channels in one module, up to 3 modules), SDI interface optional
- Superior real-time HEVC/H.264 encoding
- Audio encoding mode: MPEG-1 Layer 2, LC-AAC, HE-AAC, HE-AAC V2
- Supports HD/4K formats and frames including 2160p@30/29.97p, 1080p, 1080i, 720p@50/59.94/60fps



▶ SD Encoder ENC3184

8-Channel MPGE-2/H.264 High Efficient SD Encoder

- Up to 8 high-quality Encoding channels per chassis (1-RU)
- capable of MPEG-2 and AVC/H.264 encoding of SD video
- IPAL, NTSC, SECAM support
- MPEG-1 L2/LC-AAC/HE-AAC V1/HE-AAC V2 audio encoding
- Ultra-low bit rate encoding
- 4:2:0 encoding profiles for high video quality



► Multiplexing and Scrambling DCM771

GbE IP bi-direction ASI IP Multiplexer Scrambler

- max 4 ASI input/output through 4 bi-direction ASI ports (ASI direction can be defined as input or output manually)
- 128 IP (SPTS/MPTS) input, 4 IP (MPTS) output through 3 bi-direction Data ports
- multiplexing of SPTS/MPTS into MPTS
- PID filtering, mapping and passthrough
- Up to 4 CAS simul-cryption
- PSI/SI rebuilding and editing



► DVB-T2 Modulator MOD6420

Professional DVB-T/T2 Modulator

- Fully complying with EN302 755 standard
- 4 ASI input ports (for 1 channel TS input with 3 ports for backup)
- non-linear and linear digital pre-distortion (DPD) (option)
- SISO/MISO transmission
- MFN net mode supported
- Mono and Multiple PLP broadcasting
- DVB-T2 RF output



► DVB-T2 Modulator

➤ Comparison of the key features of the DVB-T and DVB-T2 system

Features	DVB-T	DVB-T2
FEC	Convolutional coding +RS: 1/2.2/3.3/4.5/6.7/8	LDPC+BCH: 1/2.3/5. 2/3.3/4.4/5.5/6
Modulation	QPSK 16QAM 64QAM	QPSK. 16QAM. 64QAM. 256QAM with constellation rotation
Guard interval	1/4.1/8.1/16.1/32	1/4.19/128.1/8.19/256. 1/16.1/32.1/128
FFT size	2k.4k.8k	1k 2k.4k.8k.16k.32k
Scattered pilots	8% of total	1%.2%.4%.8%of total
Continual pilots	2.0% of total	0.4%-2.4%
Bandwidth	5.6.7.8 MHz	1.7.5.6.7.8.10MHZ
Typical data rate	24 Mbit/s	24Mbit/s
Max data rate (@20 dB C/N)	31.7Mbit/s	45.5 Mbit/s

THANK YOU

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