



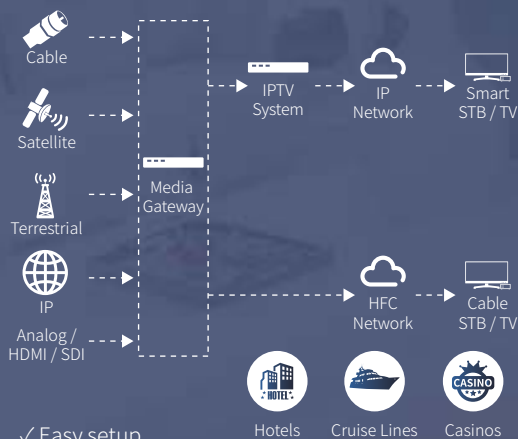
2023-2024

gateway ▶▶▶▶ better video delivery

Commercial / Enterprise Video

Hospitality TV

Wellav hospitality TV solution can help customers collect TV signals, create own channels, package, encrypt and distribute the signals to viewers via a traditional HFC network or IP-based network.



✓ Easy setup

✓ Expandable to new services / features / network

Enterprise In-house Video

Wellav offers flexible video delivery solutions with TV channels and private content to support enterprise requirements.

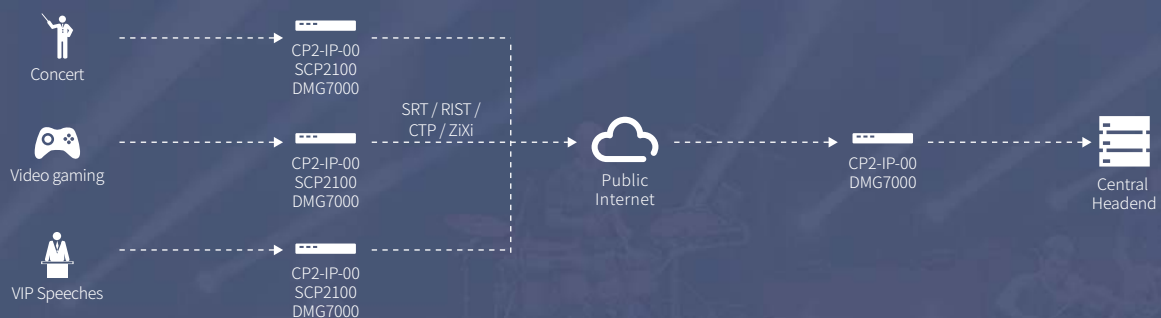


✓ Centralized control for terminal devices

✓ Deliver general / targeted content to specific locations

Video Transport over Public Internet

Wellav latest gateway solution with new reliable video transport protocols as SRT, Zixi, RIST and CTP, provides an OPEX solution to reliably transport content via public internet with low-latency and high QoS.

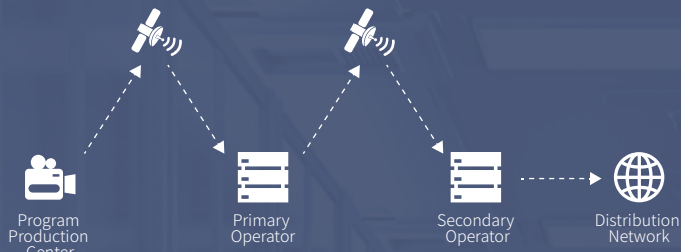


With scalable licensing features, the solution can be rapidly deployed for events and scaled up and down as required.

Broadcasting Video

Primary and Secondary TV Distribution

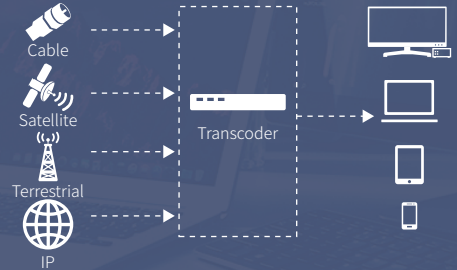
Wellav offers a full video delivery solution for broadcasters to distribute TV programs via traditional satellite and terrestrial network or via an IP-based network.



- ✓ Receiving, decoding, transcoding and transmutation
- ✓ IP/Satellite backup to ensure non-stop TV broadcasting
- ✓ In-band control capability allows broadcasters to manage headend equipment remotely

Linear / ABR Transcoding

Enable service providers to distribute their programs (up to 4K) into multiple screens via private or public internet.



- ✓ Scalable to 60 programs in one server
- ✓ Support various input and output protocols
- ✓ Software-only option, standardize hardware management

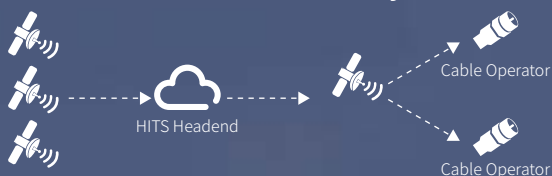
Real-time Broadcast Content Monitoring

Satellite / Terrestrial / Cable Operator Monitoring



- ✓ Collect and monitor all kinds of signal sources in one box
- ✓ Centralized controller help aggregate the data and remotely identify / analyze the signal issue across the video transport flow

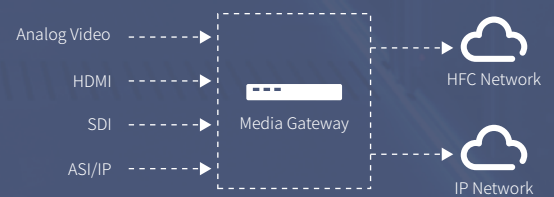
Headend in the Sky



- ✓ Integrated with CAS system, HITS headend generates uplink signals for distribution via satellite to remote locations
- ✓ In remote towns / villages, local cable operators receive satellite signals and distribute TV programs in their HFC network via a pre-configured plug-and-play Receiver & Edge QAM
- ✓ Centralized control/monitoring capability allows operators to update and configure all sites remotely

Digital Turn-around

The end-to-end digital turn around solution can help cable operators switch from analog to digital system, or upgrade to HD / UHD programs in an IP-based network.



- | | | |
|----------------|----------------|------------------|
| ✓ Decoding | ✓ Encoding | ✓ Transcoding |
| ✓ Monitoring | ✓ AD insertion | ✓ Video firewall |
| ✓ Multiplexing | ✓ Scrambling | |

Broadcasting Media Platform



DMP900

Sophisticated Failover Mechanism

- Back-up between ports / TS streams / programs

Modular-based Design

- Hot-swappable redundant power supply and hot-swappable modules
- Any input to any output including IP & ASI I / O
- Flexible combination of receiving, de- / scrambling, encoding, transcoding and modulation

Reliable PID-level Multiplexing

- Up to 6G Data TS streams multiplexing capacity
- Complete PSI / SI and PSIP table remapping / regeneration

4K / UHD Integrated Decoder Gateway



UMH160UIG

Various I / O Interfaces

- Collect signals via DVBS / S2 / T / C / DTMB / 8VSB / ISDB-T & ASI & IP
- Decode signals to CVBS, HDMI, SDI and dual audio pairs
- Output signals via ASI or IP
- Optional multiplexing, 4K decoding, TS-level BISS Decryption, etc

Special Features for Distribution

- Pre-setting for receiving
- In-band control for remote configuration and upgrade
- SRT / Zixi / RIST / HLS / RTMP / RTSP Reliable Internet Protocol input

Redundancy Backup

- Support input backup among DVB-C / S / S2 / T / T2, ASI and IP
- Support redundant backup for IP and ASI output

4K HDR Decoding

- Support 4KP60 video decoding and downscaling
- Support HDR10, HDR10+, Prime HDR and HLG

10G IPQAM Modulator



CMP330-96

- Allow 10G SFP+ input and supports input redundancy
- 96 x RF output with agile frequencies and independent constellation setting for each frequency
- Management port supports IPv6

Reliable Internet Transmission



Signal Collection Platform-SCP2100

- H.264 encoding, transcoding and rate-shaping
- Support for 8VSB, ASI, QAM-B, SDI, HDMI, SRT, Zixi, RIST and MPEG / IP
- PID-filter or service filter SPTS or MPTS inputs

Network Decoder-Impulse 300D

- Supports H.265 (HEVC), H.264 (MPEG-4) and MPEG-2 decoding up to UHD / 4K resolution
- Supports all of today's most common internet delivery protocols on the input, including HLS, SRT, RIST, RTMP and Zixi, etc
- Decodes signals into 3G-SDI, HDMI 2.0, CVBS output and also allows turnaround to UDP / RTP output

Linear (ABR) Encoder / Transcoder



OMP500

Gateway between Various Protocols

- Protocol conversion between UDP, HTTP, RTMP, HLS, RTSP
- Publish services to any popular video platforms or CDNs

High-quality Transcoding

- Linear high-efficiency transcoding among HEVC 4K, H.264 and MPEG-2 with consistent video quality
- Featured by B frame and de-interlacing, transcode video between progressive and interlaced format seamlessly
- ABR transcoding up to 4 different profiles to support any screen available

Reliable Performance

- Port / Chassis level redundancy backup to ensure non-stop streaming

Software Only Installation

- Enable the hardware standardization
- Reduce transportation / tariff cost
- Support new features or codecs via license update

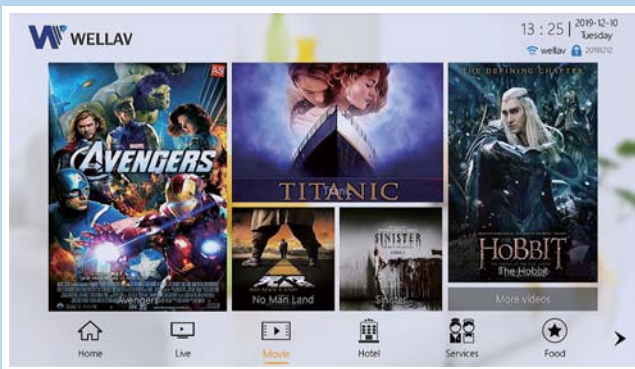
Multi-Channel Linear Transcoder Module



CX2-TXS-00

- Transcoding from HEVC to H.264 / MPEG-2 or H.264 to MPEG-2 with resolution up to 1080p60
- Featured by B frame and de-interlacing, transcode video between progressive and interlaced format seamlessly in high quality while low bandwidth
- Easily change codecs, scale resolution, or convert IP protocols for a single channel
- Protocol conversion between UDP, RTMP (input only), HLS

Hospitality / Enterprise IPTV Solution



OMP150

Specialized Features for IPTV applications

- Customized logo and video on Welcome Homepage
- Definable menu with live channels, VOD, corporate channels, mirroring
- OSD/image overlay and customized information page for advertisement
- Support multicast and unicast (HLS) streaming
- Widevine DRM de- / encryption to secure content distribution
- MPEG-2 / H.264 / HEVC video decoding with support for closed caption
- Channel packages for different subscriptions
- EPG display / management for integration with EPG provider

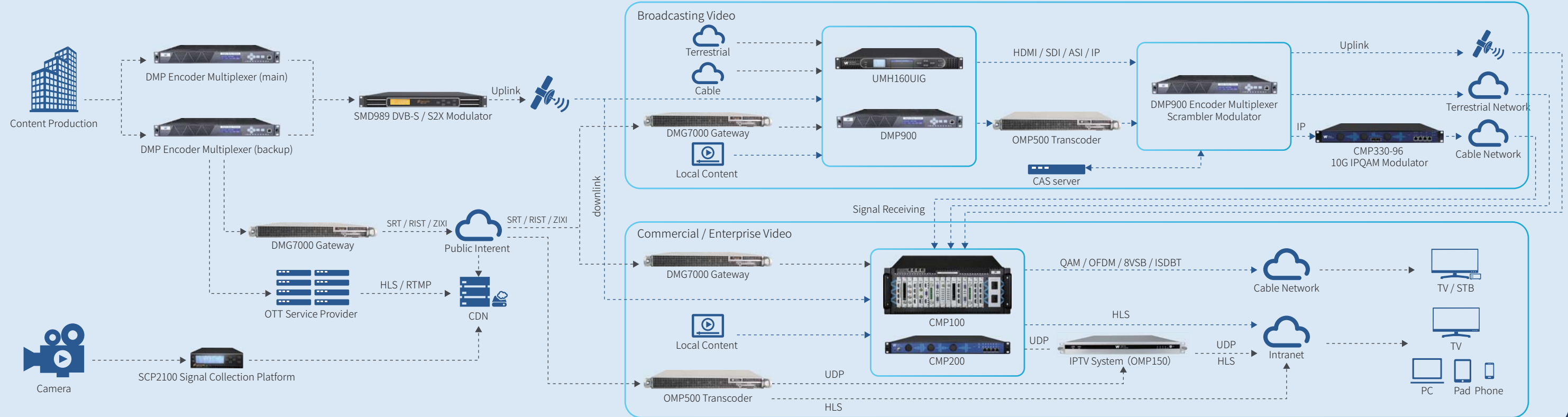
One Server-based Design

- Support up to 100 live channels and 4000 terminals (STB or APK)
- Support streaming to both Android STB, APK for Android TV, Samsung TV, LG TV
- Easy setup and maintenance

Scalable for Future

- Increase channel capacity by adding servers
- New features can be added by licensing
- New terminal devices / apps can be added based on market needs

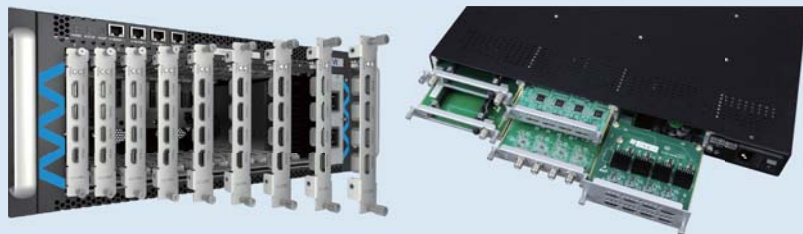
Broadcasting / Enterprise Video Distribution



Enterprise Media Gateway

High Density Modular-based Design

- Centralized IP video processing with 16 or 6 hot swappable modules
- Support redundant power supply



Any Input to Any Output

- Satellite / Cable / Terrestrial input:** DVBS / S2 / S2X (new); QAM A / B / C, DTMB / DVB-T / T2 / ISDB-T / 8VSB
- Baseband input:** CVBS / HDMI / SDI / EAS
- IP input:** Multicast or Unicast, UDP / RTP / HLS / SRT / Zixi / RIST / RTMP
- IP output:** Multicast or Unicast, UDP / RTP / HLS / SRT
- Modulation output:** QAM A / B / C, DTMB / DVB-T / ISDB-T / 8VSB
- Baseband output:** HDMI / SDI



Future-proof

- New modules / features continue to be added to support needs
- Newly released modules include:
 - CPU based transcoder: expandable to new standard
 - Multi-channel IP module: 120 IP I / O
 - ASI input / output module: 5 ASI I / O
- *To be released:
 - SDI encoder
 - 4 channel HD / SD HDMI / SDI decoder



User-friendly

- Intuitive Web-GUI for configuration and service monitoring
- One-IP address access with option to go one configuration or batch configuration
- SNMP monitoring / IP configuration available for external access



Support worldwide customers with a global platform and localized on-call services

- First-line support by an extensive network of local partners in all major countries
- Regional offices with products / facilities to provide in-time level 2 technical assistance
- Service engineers on call 24 X 7 for any customer issue / concern
- Comprehensive SLAs offered to address any customer challenges / emergencies



Leading provider of video delivery solutions for broadcaster, pay-tv and enterprise IPTV



Cable



Satellite



Terrestrial



IPTV / OTT

- Operate under **two business centers** (USA and China) with sales and support offices around the world, fully integrated R&D, manufacturing, distribution and marketing
- Enable quality video delivery over the last **70** years
- Experts in receiving / decoding, encoding / transcoding, multiplexing, decryption / encryption, modulations and IP based video protocols and monitoring
- Hold **100** patents and software copyrights
- Products designed for quality and reliability with a MTBF* up to 100,000 hours

Customers around the world

