

ATSC Content Reception & Processing

With the transition to ATSC 3.0, making the switch from ATSC 1.0 is no easy task. You must not only produce a new signal but also continue simulcasting on ATSC 1.0 without additional available spectrum. And as ATSC 3.0 adoption increases, you have to keep your ATSC 1.0 viewers satisfied while continuing to generate revenue. To embark on this transition path, you need a solution that accompanies you throughout your ATSC journey. You need Synamedia's Media Edge Gateway ATSC 3.0 Edge Content Reception and Processing.

The Media Edge Gateway is your perfect partner with ATSC 3.0 and ATSC 1.0

Flexible Edge Processing

The Media Edge Gateway (MEG) provides reception and processing of ATSC 3.0 and ATSC 1.0 signals, enabling operators and local broadcasters to decode signals for local processing or collect signals for backhaul and centralized processing before onward delivery via consumer platforms. The Media Edge Gateway provides a single box solution to your ATSC decode and collection needs

ATSC 3.0 and ATSC 1.0 Reception

The Media Edge Gateway supports both ATSC 3.0, ATSC 1.0 and IP based reception. In ATSC 1.0 the signal can be de-multiplexed selecting individual services for decode or the complete MPTS can be encapsulated and delivered for onward processing. In ATSC 3.0 applications if the signal has DRM this is processed and the clear signal can then be decoded or processed further. The MEG supports native ABR decoding and conversion of ABR to MPEG-2 Transport Stream for easy interconnection to downstream equipment via ASI, IP and SRT.

ATSC Monitoring

The MEG incorporates Trieveni Digital StreamScope, the TV industry's most advanced ATSC 3.0 analyzer; StreamScope® XM provides comprehensive real-time analysis, monitoring, and troubleshooting of broadcast services, enabling broadcasters and operators to understand their ATSC delivery chain fully.

Centralised Control & Monitoring

The Media Edge Gateway provides powerful local processing and offers centralised fleet control and monitoring via Quortex PowerVu to remove operational complexity.

The Media Edge Gateway reduces the friction with the transition to ATSC 3.0 with the ability to receive an ATSC 3.0 and generate a compliant ATSC 1.0 output in a single unit. The Media Edge Gateway extracts the incoming ABR encoded signals and transcodes these to meet the desired transmission bitrate, while the ATSC 3.0 ESG information is used to build compliant ATSC 1.0 PSIP tables. (Coming Soon)

Highlights

- Flexible service decoding of ATSC 1.0 and ATSC 3.0 formats supporting native CBR MPEG-2 TS and DASH ABR decode.
- A3SA DRM decryption support enables secure termination and onward processing.
- Advanced ATSC monitoring with Trieveni Digital StreamScope integrated with the MEG.
- Advanced uncompressed and compressed handover formats covering SDI, ASI, SMPTE 2022-2, SMPTE 2110 and ARQ protocols.
- Advanced edge transcoding and format conversion.
- Centralised control and monitoring when combined with Quortex PowerVu.

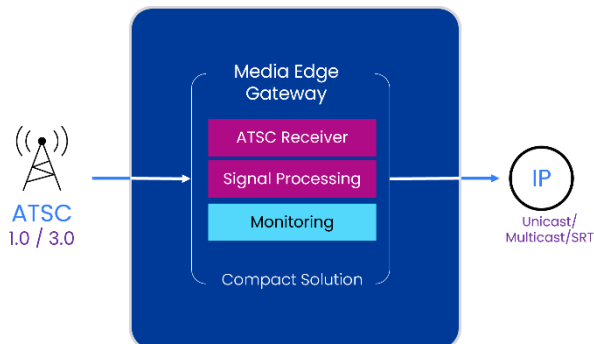


Figure 2 ATSC Receiver

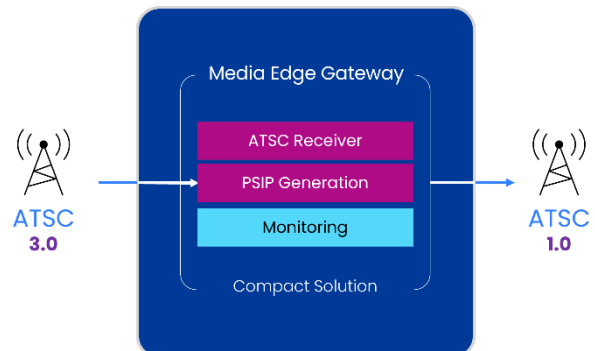


Figure 1 ATSC Re-transmission

Features and Benefits

ATSC 1.0 and ATSC 3.0 Features

- Receive ATSC 3.0 or ATSC 1.0 signals
- Decode any resolution from UHD, HD and SD
- Supports constant and adaptive bitrate (CBR/ABR) services

Edge Processing

- Single IRU unit form factor
- Utilize high availability (1+1) deployment to ensure continuous operations
- Transcode receive format for onward distribution
- WCG to Standard Colour Gamut mapping, SDR BT.2020 > BT.709/BT.601 and BT.2100 HLG > BT.709/BT.601
- HDR to SDR Tone Mapping, BT.2100 PQ (HDR10) > BT.709/BT.601

Enable Powerful ATSC monitoring to understand your Delivery

- Understand your local signal reception with built in monitoring using Triveni Digital StreamScope

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Better TV

About Synamedia

Synamedia delivers, enriches, and protects video. Our cloud-native and SaaS solutions empower customers to scale and monetize video services efficiently, ensuring low-latency delivery and exceptional image quality. Our Video Network portfolio includes video distribution, streaming, Edge CDN and multi-CDN management, monetization, ad insertion, cloud DVR (cDVR) and time-shift TV, video compression and processing, and cloud and IP transition.

Next Steps

To learn more or to book a demo, [contact us](#).