

Use Software-Based Media Edge Gateway for ATSC Distribution

Synamedia's Media Edge Gateway (MEG) ATSC 3.0 Receiver is a new application-specific gateway supporting ATSC 1.0/3.0 applications. Scalable and efficient, the futureproof gateway leverages multiple deployment options such as bare metal, container and full virtual. Designed with software-based architecture, the platform supports on-premise applications and public or hybrid clouds.

The receiver is part of MEG, the industry's most comprehensive edge reception and processing platform. The software-centric, cloud-native integrated receiver/decoder (IRD) performs all distribution and processing functions – from secure reception, through transcoding and decoding with grooming/multiplexing capabilities, to IP transport.

Key Functionalities

Software-centric application and converged platform

- Translates from one transmission scheme to another
- Easily upgrades as your ATSC 3.0 network evolves
- Utilizes an intuitive drag-and-drop interface, rich APIs, flexible workflows, and automation

Transport stream redundancy

- Maintains embedded failover mechanisms to protect against input loss by facilitating failover across RF to IP inputs
- Features failover processes such as PID filtering and remapping, fixed output PID remapping, dynamic PSI/SI/PSIP regeneration, and service/component merging
- Includes advanced re-multiplexing and PID management options

Future-flexible decoding and transcoding

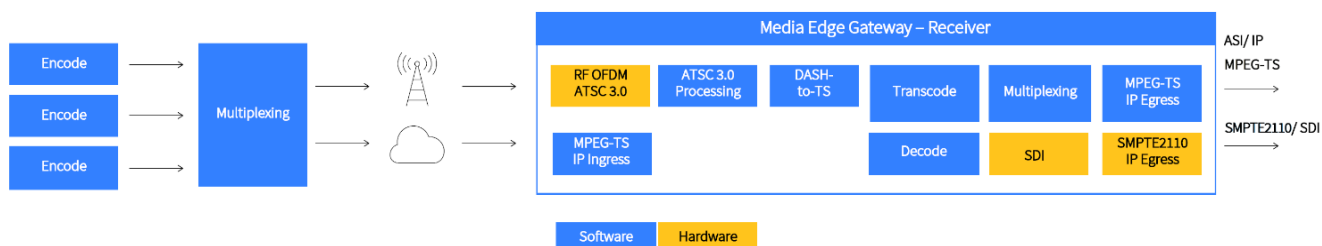
- Multiple decoded outputs up to full high definition (FHD) and UHD
- Transcodes multiple video services within single or multiple transport streams, including HEVC, AVC and MPEG-2

Built-in dashboard capabilities

- Provides comprehensive ATSC 3.0 analysis engine, visual verification, and custom dashboard

Technical Advantages

- Transcode to MPEG2 and AVC from HEVC and AVC
- Architecture accommodating multiple RF channels with each channel supporting multiple services
- ATSC 1.0 and 3.0 reception support
- Appliance options for decoding MPEG-2, AVC and HEVC services to SMPTE ST2110 or SDI
- Extensive IP support options such as MPEGoIP with FEC, Zixi, and SRT
- ASI transport output



Product Specifications

Processing	
Input Types	• SMPTE ST 2022-2 (MPTS or SPTS) • Zixi/SRT/RIST/TS over HTTP/HLS/RTMP • 12 RF inputs supported, 6 tuners for ATSC 3.0 and 6 tuners for ATSC 1.0 • SD, HD, full HD (FHD), and ultra-HD (UHD) format support • Future DRM input support
Output Types	• SMPTE ST 2022-2 (MPTS or SPTS) over IP and/or ASI • SDI • SMPTE ST2110
Video Processing	• ATSC 3.0 DASH-to-MPEG TS conversion • SD/HD/FHD/UHD decode to SDI and SMPTE ST2110 for all codecs • Video transcoding option for HEVC, AVC inputs to AVC, MPEG-2 outputs for SD, HD, FHD and UHD • AC4-to-AC3 audio transcoding • Time delay
Splicing and Switching	• Live linear broadcast splicing • Linear stream switching
Graphical Overlays on Transport and Decoded outputs	• Static logos • Scrolling text banner • EAS banner • Slate on input loss • Time ticker • Teletext and subtitle burn-in
Redundancy	• 1:1 IP interface backup • SMPTE ST 2110 port mirroring • Input service and transport stream redundancy hitless merge for MPEG-2 transport stream input using user-configurable triggers • 1:1 MEG node redundancy • TS backup: any-to-any input type
Monitoring and Management	• Integrated Grafana dashboards • Elasticsearch, Logstash, and Kibana (ELK) stack support • Alarm notifications, including SNMP traps • Syslog • Easily controlled via local web GUI • Fully documented open API enabling third-party component integration • AMWA IS-04 NMOS discovery and registration • AMWA IS-05 NMOS device connection management

Platform Support and Compatibility

Physical and Power	
Size	• 1RU, 1.73 x 22.04 x 17.24 in, 4.4 x 56 x 43.8 cm
Weight	• 21.38 lb/9.7 kg
Power Supply	• 2 AC PSU, AC input 100 to 240 VAC
Consumption	• 550W
Environmental	
Operating Temperature	• 32–113°F (0–45°C)
Storage Temperature	• 4–158°F (–20–70°C)
Operating Humidity	• 0–85% @40°C non-condensing
Operating Altitude	• 0–5,000 m (0–16,404 ft)

Ordering Information

Description	Part Number
Synamedia MEG software application (to be installed on Synamedia servers or in data center)	• MEG-APPS
Media Edge Gateway appliance	• MEG-A

Services & Support

Synamedia provides a broad portfolio of services and support to increase your network's business value and return on investment. We take a customer-centric approach, aligning our level of support to your technological requirements and network complexity. That way, you can successfully operate our products and solutions to ensure that you achieve optimal performance throughout your network's life cycle.

Warranty & Contact Information

[Read our detailed warranty information.](#)

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](#).