

# Leverage Software-Based Edge Media Distribution Securely and Efficiently

Synamedia's Media Edge Gateway (MEG) is 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.

Scalable and efficient, the future-proof gateway leverages multiple deployment options, such as bare metal, container, and full virtual, to keep your business agile. You can work in your environment of choice, including on-premises, public cloud, and hybrid cloud, to control costs and simplify management. Integrate with Synamedia's PowerVu or third-party content protection solutions to secure your entire video network chain from distribution, through processing, to delivery.

Synamedia's Media Edge Gateway gives you the flexibility to cost-effectively create new application-specific gateways such as ATSC 3.0 receivers and SMPTE2110/ 3G-SDI output decoders. This paves the way for you to deliver innovative experiences that bring more value to your customers and new monetization opportunities for your business.

## Key Functionalities

### Premium cloud and on-premises distribution

- Leverages in-house-developed video/audio codecs at lowest bitrates
- Optimizes distribution bandwidth usage and cost with innovative codecs
- Consolidates workflows to run multiple video applications across all screens efficiently and easily
- Deploys edge application either in cloud or on-premises with Synamedia VIVID workflows to increase flexibility

### Flexible decoding and transcoding across single or multiple streams for greater control

#### Decoding

- Decodes up to four MPEG-2 advanced video coding (AVC) or HEVC video-encoded services, as well as outputs on SMPTE ST 2110 or 3G-SDI with future UHD SDI support
- Simultaneously outputs up to full high definition (FHD) with future UHD support

#### Transcoding/ Processing

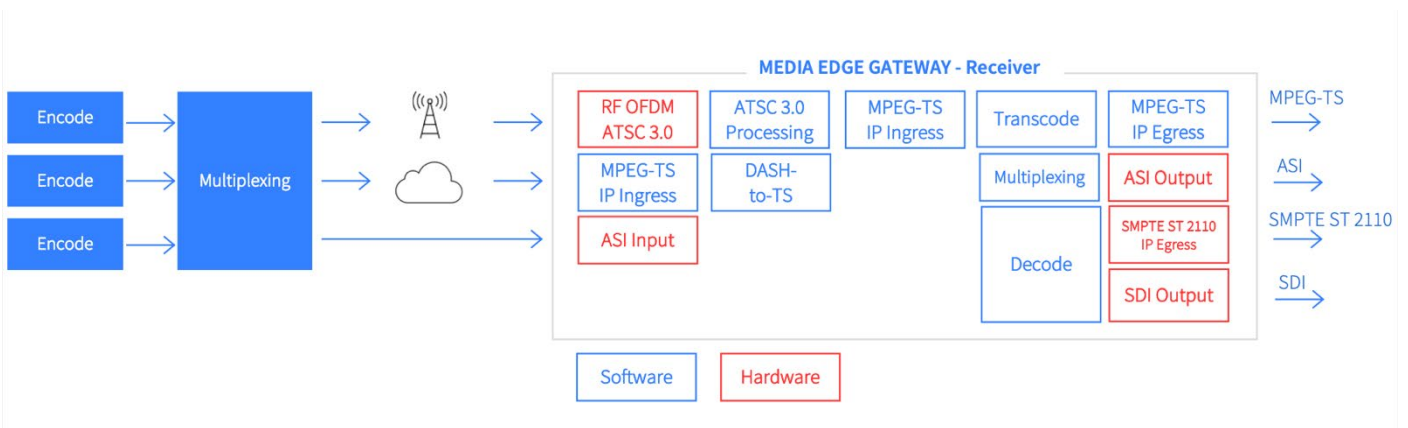
- Targets applications requiring transcoding of multiple video services within single or multiple transport streams, including HEVC, AVC, and MPEG-2
- Transcodes to ABR profiles for transport to CDN networks
- Offers advanced remultiplexing and PID management

## Technical Advantages

- Flexible and pure software-based edge reception and processing capabilities for cloud and on-premises deployment
- Scalable, dense platform with MPEG-2, AVC, and HEVC decoding support as well as high-density, HEVC and AVC transcoding support
- Extensive IP delivery support options, such as MOEGoIP with FEC, Zixi, RIST, and SRT, including HLS with ABR2TS conversion
- SMPTE ST 2110 output and NMOS support for integration with all-IP production and playout solutions
- 3G-SDI Output support, ASI Input and Output support
- Appliance option to support ATSC 1.0 and 3.0 reception
- Future integration with Synamedia's PowerVu Network Center, including PowerVu monitoring
- Future PowerVu and DVB-CI conditional access support
- PowerVu Insight enabled

### Software-centric application on a single converged platform

- Chooses from among multiple deployment models
- Operates across your preferred work environment
- Uses an intuitive drag-and-drop interface, rich APIs, flexible workflows and automation



## Product Specifications

Processing	
Input formats	<ul style="list-style-type: none"> <li>• MPEG TS over IP</li> <li>• MPTS or SPTS</li> <li>• Live linear ABR support</li> <li>• ATS</li> <li>• Embedded packaging, including HLS and MPEG-DASH</li> <li>• SD, HD, and FHD, including down-conversion support (Future UHD) • SMPTE2110-10/-20/-21/-30/-40 output support</li> <li>• SDI support</li> </ul>
Output formats	<ul style="list-style-type: none"> <li>• MPEG TS over IP</li> <li>• MPTS or SPTS</li> <li>• Live linear ABR support</li> <li>• ATS</li> <li>• Embedded packaging, including HLS and MPEG-DASH</li> <li>• SD, HD, and FHD, including down-conversion support (Future UHD) • SMPTE2110-10/-20/-21/-30/-40 output support</li> <li>• SDI support</li> </ul>
Video Processing	<ul style="list-style-type: none"> <li>• Supports up to 4 CH decodes to SMPTE2110 output or 3G-SDI support with future quad-link 3G-SDI and 12G-SDI support</li> <li>• HEVC, AVC, MPEG-2</li> <li>• HD, FHD (Future UHD)</li> <li>• SMPTE ST 2110-10/-20/-21/-30/-40 output support</li> <li>• Video transcoding option for HEVC, AVC inputs to AVC, MPEG-2 outputs for SD, HD, FHD</li> </ul>
Splicing and Switching	<ul style="list-style-type: none"> <li>• Live linear broadcast splicing</li> <li>• Linear stream switching</li> </ul>
Redundancy	<ul style="list-style-type: none"> <li>• 1:1 IP interface backup</li> <li>• SMPTE ST 2110 port mirroring</li> <li>• Input service and transport stream redundancy Hitless merge for MPEG-2 transport stream input User-configurable triggers</li> <li>• Future support of 1:1 and N:M MEG node redundancy</li> </ul>
Monitoring and Management	<ul style="list-style-type: none"> <li>• Integrated Grafana dashboards</li> <li>• Elasticsearch, Logstash and Kibana (ELK) stack support</li> <li>• Alarm notifications, including SNMP traps</li> <li>• Syslog</li> <li>• Easily controlled local web GUI</li> <li>• Fully documented open API enabling third-party component integration • AMWA IS-04 NMOS Discovery and Registration</li> <li>• AMWA IS-05 NMOS Device Connection Management</li> </ul>

## Platform Support and Compatibility

### Appliance Chassis Specifications (MEG-ATSC3RF-A, MEG-DEC-A, MEG-IPGW-A)

Physical and Power	
Size	1RU, 1.70 x 17.11 x 15.05 in, 4.32 x 43.46 x 38.22 cm
Weight	17.41 lb/7.9 kg
Power Supply	2 AC PSU, AC input 100 to 120 VAC/ 200 to 240 VAC
Consumption	550W (at 100 VAC)
Environmental	
Operating Temperature	50-95°F (10-35°C)
Storage Temperature	-40-140°F (-40-60°C)
Operating Humidity	8-90% (non-condensing)
Operating Altitude	0-3,050 m (0-10,000 ft)

## Ordering Information

Application	Part Number
Synamedia MEG Software Application (to be installed on Synamedia servers or in the data center)	R-MEG-APPS
Media Edge Gateway ATSC 3.0 RF receiver appliance	MEG-ATSC3RF-A
Media Edge Gateway IP receiver Decoder appliance (SMPTE ST 2110 output)	MEG-DEC-A
Media Edge Gateway IPGW appliance	MEG-IPGW-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.](#)

Learn more about Synamedia's [video network distribution solutions](#).

For more information, contact your account manager or [visit our site](#).

## About Synamedia Video Network Distribution Solution

Synamedia offers a comprehensive distribution solution for content providers to securely deliver video to multichannel programming video distributors (MPVDs). Part of Synamedia's end-to-end video network portfolio, the solution is anchored by a converged platform enabling the distribution of linear channels via satellite and/or terrestrial networks. Our cost-effective solution leverages network control, reception and managerial capabilities to ensure the reliable delivery of premium quality video through flexible transmission options tailored to your working environment.