DATASHEET

Synamedia

Edge Media Broadcaster

Multicast ABR Distribution
for Broadband and IPTV Network Operators

Infrastructure-Savvy Media Distribution Using Future-Proof ABR Formats

Based on CableLabs' reference architecture, Synamedia's Edge Media Broadcaster is a pure software solution for operators. Bringing the strength of broadcast to the world of streaming, the solution enables you to leverage the latest adaptive bitrate (ABR) video distribution formats to maximise your existing infrastructure and reduce your CDN investment.

Thanks to multicast-ABR, the OTT world and the IPTV worlds do not have to work in two separate silos, which require headend infrastructure duplication. Now they can rely on a single, converged headend and on a single, converged distribution path. This convergence also benefits your viewers; the switch between multicast and unicast ABR is transparent and seamless, with no impact on existing streaming devices and players.

A highly available and scalable solution, Edge Media Broadcaster supports millions of viewers simultaneously. With low latency and error correction mechanisms, it helps you save on infrastructure and operation costs.

Key Functionalities

Best of two worlds for maximum cost savings

- Solves scaling issues caused by unicast streaming in the event of growing viewership or highly popular events
- Delivers live TV in multicast by optimising bandwidth on your network in a similar way to IPTV
- Converges ABR streaming and IPTV toward a single, unified headend to eliminate costly duplicated infrastructures
- Works with existing ABR distribution infrastructures – transcoders, packagers, origin servers, CDNs – with no need for modification or DRM

Maximum performance and reliability

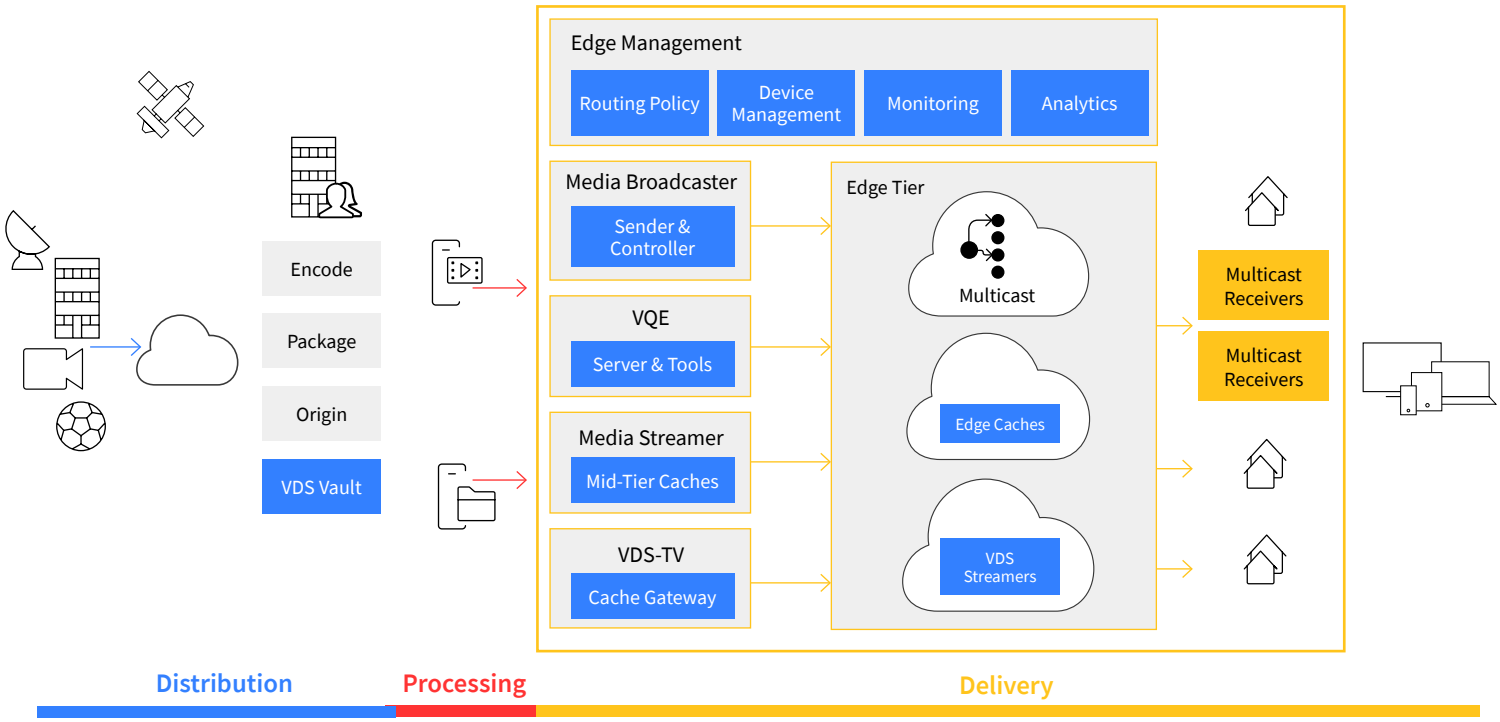
- Optimises latency thanks to low-latency ABR technologies, while leveraging higher predictability of delivery delays permitted by multicast distribution
- Implements Reed-Solomon forward error correction (FEC) for highest reliability and best user experience
- Supports fast channel change via unicast client buffer filling
- Supports popularity- and configuration-based distribution policies for multicast/unicast switching

Technical Advantages

- MPEG-DASH, HLS and HSS ABR format support
- IPv4, IPv6, IGMP2, IGMP3, PIM-SM, and PIM-SSM network standard support
- HTTP unicast retransmission for error correction
- Compatibility with existing ABR infrastructures
- No impact on OTT devices and players
- Advanced analytic dashboards

Ease of integration and full transparency for end users

- Simply integrates lightweight receiver in an STB or home gateway
- Eliminates impact on end-user streaming devices and players
- Seamlessly and transparently switches between ABR unicast and ABR multicast
- Avoids impact on ad insertion, cloud DVR, time-shift TV, live seek, and trick modes



Product Specifications

Specifications	
ABR Formats	Apple HTTP Live Stream (HLS) MPEG Dynamic Adaptive Streaming over HTTP (DASH ISO-BMFF) Microsoft HTTP Smooth Streaming (HSS)
Network Standards	IPv4, IPv6, IGMP2, IGMP3, PIM-SM, PIM-SSM
Low Latency	HTTP Chunked Transfer Encoding (HCTE) CMAF technologies
Error Correction	Reed-Solomon FEC HTTP retransmission
Content Distribution Policies	Popularity-based Configuration-based
QoS	Supports DSCP marking of multicast streams for network QoS enforcement
Analytics and Reporting	Operational dashboards, KPI metrics, CDN health, bandwidth, cache-hit ratio, network, content and viewers
CPE Integration	Deployable embedded client (MC-Receiver) in any Linux based gateway or STB Deployable through standard CPE update process

Platform Support and Compatibility

Content Delivery Engine Chassis Specifications

Physical and Power	
Size	SFF chassis: 1.69 x 17.11 x 27.83 in, 4.29 x 43.46 x 70.7 cm
Weight	35.86 lb/16.78 kg
Power Supply	AC input 100-240 VAC
Consumption	800W (power supply)
Environmental	
Operating Temperature	50-95°F (10-35°C)
Storage Temperature	-40-140°F (-40-60°C)
Cooling	Smart array controller and seven fans
Operating Humidity	8-90% (non-condensing)
Operating Altitude	0-3,050 m (0-10,000 ft)

Regulatory Compliance	
Compliance	CE Markings per directives 2004/108/EC and 2006/95/EC
Safety	UL 60950-1, 2nd Edition, 2014-10-14 (Information Technology Equipment -Safety -Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment -Safety -Part 1: General Requirements)
EMC Compliance	EN 55032:2015/AC:2016 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 55024:2010 +A1:2015 EN 61000-4-2:2009 EN 61000-4-3:2006 +A1:2008 +A2:2010 EN 61000-4-4:2012 EN 61000-4-5:2014 EN 61000-4-6:2014 EN 61000-4-8:2010 EN 61000-4-11:2004

Ordering Information

For ordering information, please contact your sales representative.

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 Solutions

Synamedia's video network solutions enable media, web and pay TV providers to deliver pristine-quality broadcast and broadband video securely over any network to any screen. Anchored by the industry's most comprehensive processing platform and built with high-quality standards, our solutions ensure outstanding performance and reliability for over 1,000 customers worldwide. Synamedia's solution portfolio covers the entire video network chain – from distribution, through processing, to delivery – enabling you to offer outstanding value-added and personalised experiences while saving costs.