

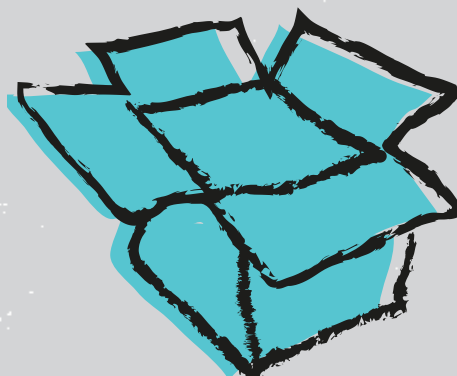
STREAMBUILDER OVERVIEW

StreamBuilder is one of Edgeware's four product families and includes content processing functionality necessary for an OTT distribution.

Available as both an on-prem and saas offering it brings key capabilities to capitalize your content, offer a glitch-free viewing experience and a scalable solution.

StreamBuilder includes products for the following applications:

- OCR Subtitling
- Ingest and Segmentation
- Ad Insertion
- Time-shift TV
- Just-in-Time Repackaging
- Protection
- Content Stitching



Packager and Protection, part of Edgeware's StreamBuilder product family

PACKAGE YOUR CONTENT TO ANY ABR FORMAT AND DELIVER IT ACCORDING TO YOUR RIGHTS

Packager and Protection, part of Edgeware's StreamBuilder product family converts your live and VoD assets to the different streaming formats required by today's devices, such as HLS, DASH and MSS. Its rich support for each individual format's multiple variations makes Packager and Protection essential for your ability to offer glitch-free streaming services to any device. Content can be encrypted according to its digital rights management (DRM) schemes, making sure your assets are protected throughout the distribution.

WHAT IT DOES

Edgeware's StreamBuilder products provide the ultimate capabilities for distributing live streams and VoD assets over an http delivery platform.

Packager and Protection is one of the products in the StreamBuilder product family. It converts and packages your content just-in-time into an adaptive streaming format such as HLS, DASH and MSS.

The Packager and Protection product can retrieve content from Edgeware's Ingest and Segmentation product, or from your external VOD library.

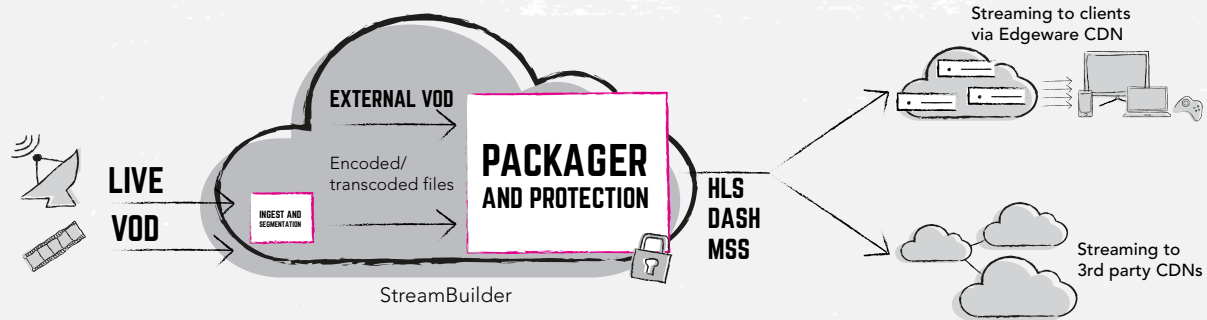
Providing a glitch-free delivery of your valuable streaming assets, the Packager and Protection supports encryption according to the assets' DRM schemes.

FEATURES & BENEFITS

- ✓ Just-in-time packaging into any ABR format including support for a rich set of each format's variations giving maximum client compatibility
- ✓ Low latency support even for older clients (MSS) and SmartTVs due to optimized system design
- ✓ Fragmented MP4 as delivery format for HLS combined with Common Encryption cbc's support enable HLS and DASH to reuse the same segments giving up to 50% CDN storage savings
- ✓ Easy to create customized service offerings with powerful manifest filter
- ✓ Pre-integrated with all leading DRM systems including CPIX support
- ✓ Support for ad- and black-out markers for dynamic content replacement
- ✓ Support a wide range of subtitle formats for any type of device

HOW IT WORKS

1. Upon request from the client device, the Packager and Protection retrieves live or VoD content from Edgeware's Ingest and Segmentation or from your external VoD library.
2. The content is packaged to the requested ABR format (e.g. HLS, DASH, MSS).
3. If offline viewing is requested, the content is converted to DASH On Demand, which is an ideal offline format.
4. Content is encrypted if requested.
5. Manifest is created and content is streamed either directly to clients using Edgeware CDN or via third party CDN.



HOW TO DEPLOY

Packager and Protection can be deployed in public or private clouds, in data centers or on COTS hardware. The product can also be offered as

part of the Edgware Cloud Service, with Edgware operating it from the cloud. The modular architecture of the StreamBuilder products allow

full flexibility to suit different market characteristics and business models and provide an elastic and scalable content processing solution.

TECHNICAL SPECIFICATIONS FOR PACKAGER AND PROTECTION

VIDEO & AUDIO CODECS
Video codecs:
AVC/H.264
HEVC/H.265
Audio codecs:
HE-AAC
HE-AAC v2
AAC-LC
AC-3 (Dolby Digital)
E-AC-3 (Dolby Digital Plus)
Dolby Atmos
OUTPUT FORMATS
HLS
MPEG-DASH:
SegmentTemplate:
Number-based
SegmentTimeline
DASH On Demand
MSS

ENCRYPTION AND DRM
CPIX incl signed document
Key Rotation
AES-128 + Sample-AES
Common Encryption
cbcs
cenc
FairPlay Streaming
PlayReady, Widevine, Verimatrix
Irdeto, Conax and others
SUBTITLES
WebVTT
TTML/IMSC-1
TTML/DFXP
DYNAMIC AD MARKERS
Ad Markers from SCTE-35
OTHER FEATURES
Customizable client output profile
Trick play support
Download 2 Go

CLOUD FRIENDLY
Object based storage
S3
Azure blob
Cloud platforms
AWS
Azure
HIGH AVAILABILITY
Node redundancy
SYSTEM CONTROL
SNMP (Control and Status)
REST API
Configuration and Monitoring GUI
System Resource & Statistics Monitoring
Notification and Alerts
SYSTEM HW / SW
Linux RHEL 7 + CentOS 7
Unlimited number of CPU Cores
IPv4 + IPv6
IGMPv2 + IGMPv3
HTTPS/FTPS