

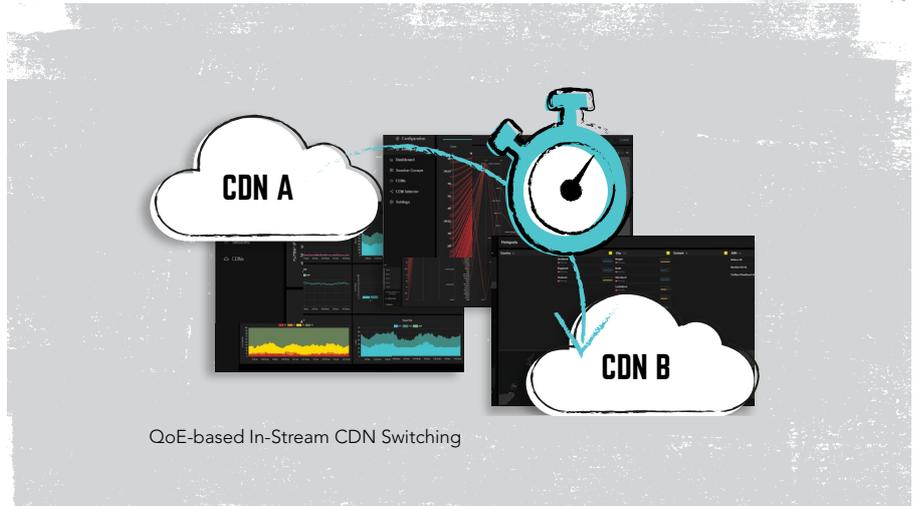
**STREAMPILOT OVERVIEW**

StreamPilot is Edgware's cloud-based delivery control platform for multi and single CDN environments. The platform enables a number of services, all of which are delivered as managed services, hosted and operated by Edgware.

StreamPilot is a server-side system controlling the delivery of streaming media from the CDN to the requesting client. Its position in the network - between the client and the CDN - makes it 100% agnostic to both client and CDN.

Current services and service packages offered on the StreamPilot platform:

- Initial CDN Selection
- QoE Monitoring
- QoE-based Initial CDN Selection
- QoE-based In-Stream CDN Switching



## OPTIMIZE THE DELIVERY PATH WITH REAL-TIME QOE MONITORING AND ACTIVE IN-STREAM SWITCHING

QoE-based In-Stream CDN Switching is a cloud-based service available on the Edgware StreamPilot delivery control platform. It ensures that every segment of the video stream is always delivered from the CDN offering the best performance in the region, has the best ISP peering, and takes the optimal path through the network. Edgware's Algorithmic Session Tracker (AST) monitors and processes real-time session and network data, and instantaneously triggers a switch to another CDN should a drop in bitrate request occur. The service mitigates any CDN-related video problem and orchestrates the delivery for best possible quality of experience (QoE).

**OVERVIEW**

QoE-based In-Stream CDN Switching offers real-time QoE monitoring and instant CDN switching in one combined service.

By monitoring session data in real time, it immediately detects any drops in bitrate requested by the client and will automatically select and switch to another CDN for the delivery of the next segment in the stream. Orchestrating the multi-CDN environment and providing a unified view of the CDNs' performance, it ensures that the best CDN is used and that the content is routed through the optimal delivery path to the end viewer.

You can set the switching rules that best fulfills your business policies and select the delivery path optimized for your particular region or content.

Edgware's powerful AST capability is part of the QoE-based In-Stream CDN Switching service and uses artificial intelligence (AI) technology and machine-learning to process the session data from the ongoing streams.

The QoE-based In-Stream CDN Switching is a server-side solution and inserts itself in the control plane between the client and the CDN, offering a true client and CDN agnostic solution.

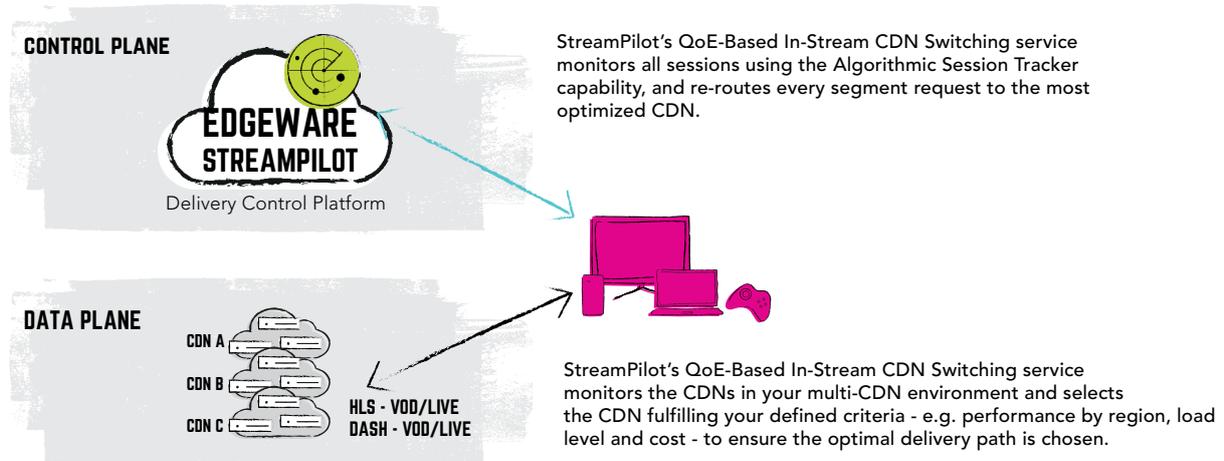
**KEY FEATURES & BENEFITS**

- ✓ Selects the optimal CDN by region and by ISP peering performance
- ✓ Switches to the best CDN during ongoing stream (also referred to as in-stream or mid-stream switching)
- ✓ Monitors session data, such as bitrate requests, in real time (less than

3 sec) to detect potential quality drops that triggers CDN switching

- ✓ Detects and mitigates quality drops in time before the end viewer notices any impacts on the QoE
- ✓ Orchestrates the delivery in a multi-CDN environment
- ✓ Provides visibility of traffic patterns and potential network problems from AI and machine-learning processed session data
- ✓ Brings insights into viewing trends such as type of client used, geographic spread and content watched
- ✓ Combines QoE Monitoring and CDN Switching in one integrated service
- ✓ Avoids complex client integration and CDN vendor lock-in
- ✓ Allows fast set-up and time to service (TTS) in a SaaS manner with 24/7 monitoring

# STREAMPILOT: QOE-BASED IN-STREAM CDN SWITCHING



## ALGORITHMIC SESSION TRACKER (AST)

AST is a key enabler of the QoE-based In-Stream CDN Switching service. The powerful combination of real-time session data, the processing capabilities with AI and machine learning,

coupled with ISP performance data help streaming providers to detect and mitigate quality-affecting issues in time and select the optimal delivery route for their content.

The challenges of huge and complex data volumes, delayed and non-unified reporting of CDN problems are all addressed with AST's real-time monitoring.

## SERVICE DETAILS - QOE-BASED IN-STREAM CDN SWITCHING

### QOE-BASED CDN SWITCHING PARAMETERS

Bitrate delivered  
Bitrate trends

### OTHER CDN SWITCHING PARAMETERS

Client geography  
ISP/ASN  
IP address  
Content  
Live  
VoD  
User agent (url)  
Time of day

### VIDEO FORMATS SUPPORTED

HLS  
Live  
VoD  
MPEG-DASH  
Live  
VoD  
MSS  
Live  
VoD

### CLIENTS SUPPORTED

Client agnostic - HTTP redirect required on clients  
Tested against all major players

### OPEN API

REST APIs for integration and control

**FOR MORE INFO ON THE STREAMPILOT PLATFORM, PLEASE SEE:**

- [StreamPilot Solution Brief](#)