Verifying the availability and quality of Multiscreen/Over-the-top (OTT) video is a complex challenge. For Adaptive Bitrate (ABR) streaming, each video asset is published in a variety of bitrates (“asset variants”) and in multiple packaging formats to support the plethora of devices customers use to play your video. All of this complexity increases the risk of a poor viewing experience.

At the same time, the video content traverses many different networks — from content preparation, across the Content Delivery Networks (CDNs), through the access network to the device. If your customers experience slow video startup, mid-program buffering, or missing content, you are inviting them to try a competitive offering. The result is churn. Without purpose-built tools you may not even know why the churn occurs.

Surveyor ABR Active is a video quality monitoring solution that uses Synthetic Client technology to verify that your video content — live and on-demand — is available and plays as expected, for every bitrate variant and format. It effectively acts as your most critical viewer, measuring video flows and keeping you informed about your service’s performance.

Simply point Surveyor ABR Active at the asset variants you want to monitor, and it continuously plays or cycles through the video to measure key performance indicators (KPIs).

Surveyor ABR Active is an integral component in Telestream’s IQ ABR solution. Its active monitoring and scalability is ideal for monitoring intra-CDN and post-CDN, and keeps you informed of service accessibility, protocol conformance, video streaming performance, and content quality.

Active monitoring is a great complement to client-based solutions that are designed for monitoring your viewers’ actual experience and behaviors. On their own, client-based solutions offer monitoring of only the content currently viewed by customers. Surveyor ABR Active is a proactive solution, and by using its measurement capabilities combined with targeted scheduling functions, you can monitor the content that is critical to your business success before customers see issues. Proactively monitor any or all bitrates of your content. In different locations in the video delivery chain, you can identify weaknesses in quality and diagnose their sources.

Key Benefits

- Accessibility verification, ensuring the content is accessible at each location across the distribution and access network.
- Proactive visibility into the performance of video streams at any point from the origin server to the edge and the access network.
- Quality of Service (QoS) and Quality of Experience (QoE) monitoring of ABR video traffic using Synthetic Client technology acting like a client to request any asset variant.
- Availability measured for each bitrate variant of a video asset to identify issues before customer impact.
Features

• Active QoS & QoE monitoring for ABR video streaming supporting the following packaging formats:
  • Hypertext Transfer Protocol (HTTP) Dynamic Streaming (HDS)
  • HTTP Live Streaming (HLS)
  • Microsoft Smooth Stream (MSS)
  • Dynamic Adaptive Streaming over HTTP (DASH), also known as MPEG-DASH
• 24/7 or scanning monitoring of live and on-demand content with asset-based multi-level drilldown into per segment statistics for rapid fault isolation and reducing mean time to diagnose (MTTD)
• Asset service validation (manual or scheduled) ensuring asset availability for your entire on-demand library
• Stream performance “at a glance” with Availability and the patented VeriStream QoS metric
• Real-time streaming error notification with customized threshold configuration and configurable Availability parameters puts emphasis where you want it
• Monitoring profiles support stream prioritization and differentiation groupings
• Schedule-based Monitoring to optimize active monitoring using realistic constraints based on server load, bandwidth utilization and Content Delivery Network (CDN) costs
• Dynamic Ad Insertion support with SCTE-35 monitoring, detection, decode and alarming
• Full packet capture buffer based on customized trigger events for in-depth post-event analysis
• Playlist error detection through dynamic parsing and conformance monitoring
• Monitoring and alarming of HTTP errors (HTTP 4xx, 5xx)
• Media File error detection
• Playlist and Manifest file inspection
• Keyless QoS measurement of encrypted streams
  • Advanced Encryption Standard – AES-128 support for HLS
• Enhanced Traceroute for network analysis to measure for potential choke points in the distribution path
• An Application Programming Interface (API) provides the ability to control the probe, schedule monitoring, and access the Surveyor ABR Active metrics and additional information

Applications and Uses

For Video Service Providers, Content Owners, and Online Video Platforms (OVPs):

• Verify that all your assets are available from your origin servers, and that the servers are meeting performance expectations
• Continuously scan up to 10K assets in your Video on Demand (VOD) library for availability and QoS
• Establish and monitor Service Level Agreement (SLA) benchmarks for your CDNs

For Online Video Service Platforms (OVSPs), Network and CDN providers:

• Differentiate your service with real-time performance monitoring for your customers’ video assets
• Provide third-party validated video asset performance metrics
• Quickly direct Surveyor ABR Active to troubled video assets to help determine the root cause of a problem and determine if the issue is in the CDN or not
• Identify how specific assets perform in your network to identify and eradicate trouble spots

Technical Specifications

Available as a server-based appliance or virtual software package:

• The appliance solution is licensable for up to 500 concurrent sessions of HTTP based streaming video in a 1U chassis. Three available NMC options: 4 Port SFP, 1G; 4 Port RJ45, 1G; 2 Port SFP+, 1G/10G.
• The virtual software package is licensable for up to 500 concurrent sessions of HTTP based streaming video, and can be loaded on a Virtual Machine in a VMWare or KVM hypervisor environment.