



Broadcast Quality H.264 for Live Internet Video

Highest Quality Software-based Internet HD Encoding and Transcoding The KulaByte™ Internet Encoder and Transcoder is ideal for streaming live events and OTT broadcast channels. 100% software-based, KulaByte combines High Profile H.264 encoding with advanced bandwidth controls to optimize both uplink and Internet delivery of high definition adaptive bitrate (ABR) video streams.

The Power of 100% Software As a software-based platform optimized for 64-bit computing, KulaByte is equally powerful when deployed for source stream encoding or for cloud-based transcoding, and built on the reliable Linux operating system. KulaByte encoding systems support transcoding of up to four 1080p HD sources, either baseband or as IP streams. When deployed in the cloud, KulaByte stands alone in supporting both Transport Stream and RTMP ingest, enabling existing workflows to immediately benefit from cloud efficiencies. As a software platform unrestricted by proprietary hardware technology, an investment in KulaByte will extend for many years, assuring the best ROI in its class.

Technology Designed for Uplink Efficiency KulaByte makes the most of available uplink bandwidth and creates the highest quality streams for any given bitrate. KulaByte systems combine Constant Bit Rate (CBR) output with Dynamic Stream Shaping (DSS) to dynamically change the bitrate and compensate for fluctuations in uplink bandwidth availability. This assures the best Internet delivery of any source stream over any network condition.

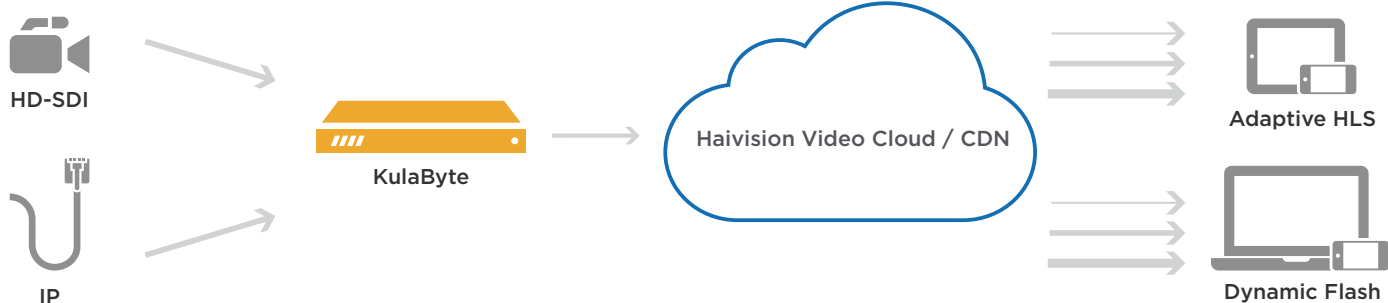
Adaptive Bitrate (ABR), Dynamic Flash and Adaptive HLS Based on an advanced implementation of the highly efficient H.264 codec, KulaByte natively supports both Adobe's Dynamic Flash™ streaming protocol (RTMP) with the largest global penetration of playback devices, and Apple's Adaptive HTTP Live Streaming (HLS) protocol supported by iPhone™, iPad™, and Android phone and tablet devices, as well as set-top boxes such as the Roku™ streaming player.

Product Features

Product Benefits

100% software-based	High ROI, scalable performance, cloud deployable
H.264 High Profile encoding	Best quality per bit transferred
Dynamic Stream Shaping (DSS)	Best use of restricted / variable uplink connections
RTMP or Transport Stream input	Transcoder accommodates existing IP-based workflows
ABR encoding/transcoding	Encode/transcode up to 4 inputs per system with up to 6 outputs per input
Akamai HD2 network qualified	Compliance helps ensure reliable streaming
GUI or API control	Operate complex workflows with browser Web UI or custom REST API integration
Linux-based platform	Higher performance & reliability. Take advantage of lower-cost cloud instances
608/708 closed captioned	Work with either CC standard

KULABYTE SYSTEMS	KULABYTE PILOT ENCODER /TRANSCODER HD SERVER	KULABYTE HD ENCODER /TRANSCODER SYSTEM
<p><i>Video Input Resolutions</i> up to 1080p30</p> <p>Video Encoding <i>Compression Standard:</i> H.264 (highly configurable codec) <i>Profiles:</i> High, Main, Baseline <i>Bit Rates:</i> up to 10 Mbps <i>Rate Control:</i> CBR <i>Video Sampling:</i> up to 4:2:2</p> <p>Audio Encoding <i>Compression Standard:</i> AAC-LC/HE <i>Bit Rates:</i> up to 512 Kbps</p>	<p>Video Input (1 input): Component Analog Composite S-Video HD-SDI RTMP MPEG Transport Stream</p> <p>Audio Input (2 Channel): Balanced and Unbalanced (Analog and AES/EBU) HD-SDI Embedded</p> <p>Stream Outputs: 1 x 720p ABR¹</p> <p>Operating System: Linux</p> <p>Standard IP Interfaces: 2 x RJ45 Ethernet</p> <p>Weight (max.): 17.76 kg</p> <p>Dimensions: 1RU: 42.4H x 434W x 390.7D (mm)</p> <p>Power (Internal Supply): 100-240 VAC 250 W</p>	<p>Video/Audio Inputs: up to 4 x HD-SDI Each input with 2-channel embedded audio RTMP MPEG Transport Stream</p> <p>Stream Outputs: up to 4 x 1080p ABR²</p> <p>Operating System: Linux</p> <p>Standard IP Interfaces: 2 x RJ45 Ethernet</p> <p>Physical Characteristics S-KB-1 1 RU Weight (approx.): 19.9 kg Dimensions: 42.8H x 434.0W x 607.0D (mm) Power (Internal Redundant Supply): 100-240 VAC 717 W</p> <p>Physical Characteristics S-KB-2/4 1 RU Weight (approx.): 19.8 kg Dimensions: 42.8H x 434.0W x 682.7D (mm) Power (Internal Redundant Supply): 100-240 VAC 717 W</p>
<p>¹ 720p ABR = 720p+480p+360p+270p+180p ² 1080p ABR = 1080p+720p+480p+360p+270p+180p</p>		



KulaByte Product Portfolio & Ordering Information **

KulaByte Pilot Encoder/Transcoder System	S-KB-PILOT-1	Entry Level Baseband 1 Input SD/HD Encoding /Transcoding Server, HD-SDI/Component/Composite Input, 720p ABR ¹ Output
KulaByte Encoder/Transcoder Systems	S-KB-1/2/4	Enterprise Class SD/HD Encoding /Transcoding Server, HD-SDI Input, with 1, 2 or 4 x 1080p ABR ² Outputs
Kulabyte Software Package	SW-KB-1	Software install, supports 1 input on one server for qualified hardware

** For complete pricing and ordering, contact us at sales@haivision.com or your certified Haivision reseller.