

VOS® media software

ONE SOFTWARE, EVERY VIDEO WORKFLOW



MediaKind VOS® media software is a comprehensive cloud-native software that streamlines the entire video workflow.

MediaKind VOS media software gives broadcasters and service operators a single, orchestrated software to run their broadcast and streaming video workflows – from advanced playout, branding and encoding to packaging origin and/or statistical multiplexing. As a cloud-native, container-based solution, VOS deploys whether you need it: on-premises or in private clouds. One software. One team. Zero compromises on quality or reliability.



Playout, Broadcast and Streaming, together

VOS media software provides a large range of applications in a single cluster, from playout or broadcast to streaming.

An embedded, feature-complete playout engine allows ingesting any file type, scheduling playlist, adding dynamic advanced HTML5 graphics and branding, recording and editing content to create easily your desired linear channel within one system.

Broadcast workflow. From live ingest to statistical multiplexing, scrambled output, powers live channels for broadcast delivery. Award-winning compression engine “PURE” delivers premium video quality cutting bandwidth costs.

The streaming workflow powers entertainment for millions, offering instant access to Live, TimeShift, Catch-up, Start-over, nPVR and VOD content.

VOS media software offers a complete API and is integrated with a wide range of certified partners, including CMS, DRM, client apps, public CDNs, MAM, and traffic/control systems.



AI based PURE compression engine

The built-in and globally deployed “PURE” compression engine gives you the best video quality at the minimum bitrate. EyeQ™ content-aware encoding and latest developments in artificial intelligence save up to 50% of the storage and bandwidth required for OTT streaming.

You can enrich the viewing experiences for live news, sports and still save on storage and delivery costs with exceptionally low bitrates.



Every video workflow. Orchestrated. Highly secure.

You'll have unrivalled versatility with the most complete feature set. Deliver hybrid services, from satellite broadcasting with full Statistical Multiplexing capability to OTT streaming.

You get live streaming, time shifting, network PVR, Playout, targeted ad insertion, packaging and origin on the fly. Unified on a single platform.



AI-powered workflows

VOS media software uses content aware encoding to optimize video quality and enhance compression efficiency, cutting storage and bandwidth costs by up to 50%.

VOS media software is integrated with Harmonic's AI orchestration service, giving access on the fly to an expanding suite of AI-powered functions including Speech-to-text, Text to speech, voice cloning or dubbing, contextual metadata extraction along the live content and enriching seamlessly video workflows.



Continuous availability

Maintain stream and channel continuity. No matter what. VOS's advanced orchestration tightly integrates redundancy and automatic failover.

Redundancy is built in as part of the orchestration layer, including both Input and Source redundancy mechanisms, providing instant switchover when necessary. Your services keep running.



Robust security, without compromise

VOS was built with security at its core, featuring secure access controls like single sign-on, multi-factor authentication, and HTTPS for all connections.



VOS implements security best practices across its architecture and operations.

Security is actively maintained through continuous log analysis and prompt deployment of patches by the Harmonic security team, ensuring VOS remains protected against emerging threats.



Cloud-native software

VOS media software is a Cloud-native orchestrated software based on containers and microservices. It is designed to run on Kubernetes (k8s) or OpenShift, infrastructure agnostic. It is easily deployable in any environment, COTS hardware in Data centers, private or public cloud.

With a rich API and user-friendly UI, complex workflows are streamlined with guaranteed reliability. The application automatically orchestrates the required containers to create the expected workflow.



Hybrid Flexibility

Deploy in the environment that fits your business: your data centre, a public cloud, or a hybrid architecture that seamlessly connects both. Scale on demand or instantly migrate workloads as needed. VOS supports legacy broadcast as well as the latest streaming workflows, giving you full control and freedom.



Monitoring

Comprehensive logs, analytics, performance metrics and usage reporting empower data-driven decisions for every channel and asset.

Using industry standard ELK's stack tools, Prometheus and Grafana, data is used via internal dashboards or external monitoring tools.

Dashboard makes it easy to check the cluster, processes and services health for efficient operation.



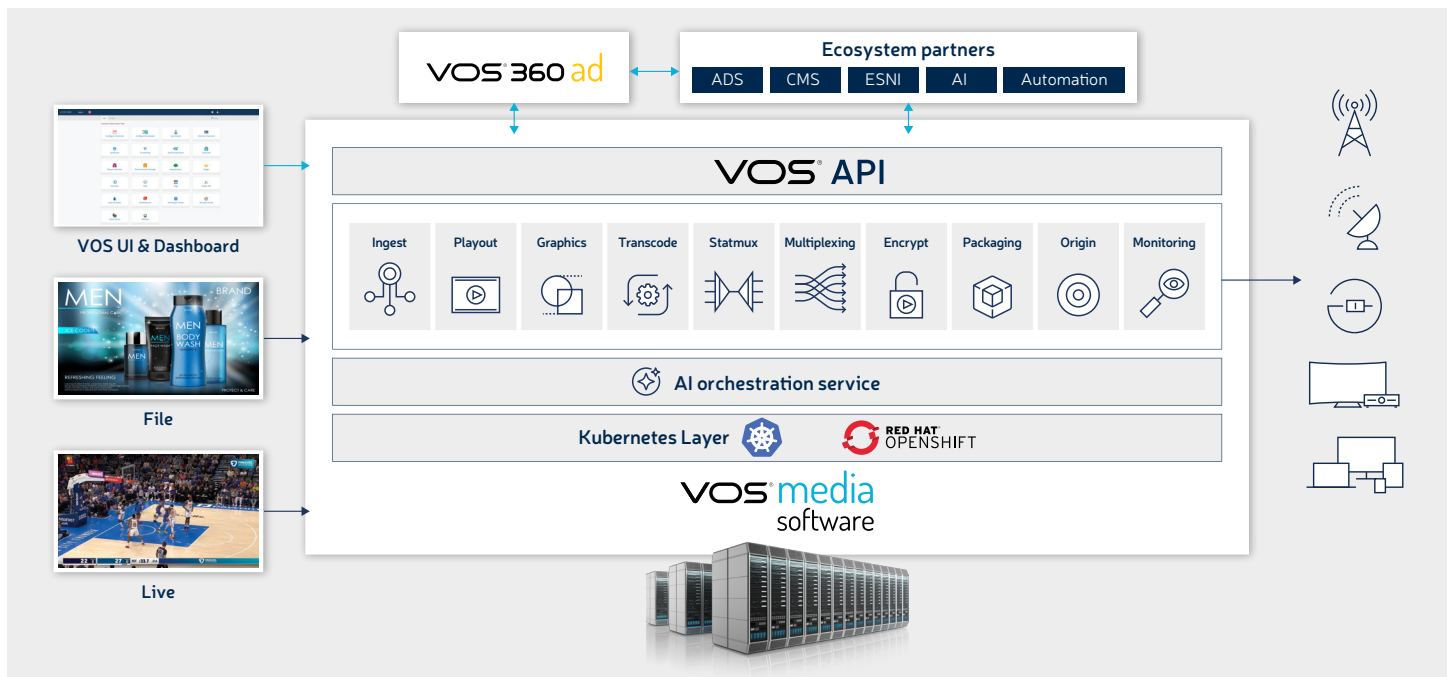
Monetize

Monetizing live streams and VOD assets is ensured by connecting VOS media software to VOS[®]360 Ad. Ad revenue can then be maximized by inserting full-screen and new innovative in-stream ads.

Workflows. Key capabilities

Playout, Broadcast and Streaming fully orchestrated under one management interface.

- **Advanced Playout.** Live to live, live to file, file to file seamless switching, 8 layers for dynamic graphics / DVE, playlist control by on-board automation, record or delay live feed, record while play or edit.
- **Broadcast workflows.** Live ingest, premium encoding, statistical multiplexing, DVB-CS scrambling.
- **Streaming workflows.** Live ingest, premium encoding, Low-latency packaging, time-shift, catch-up, Start-over, nPVR and VOD.
- **AI powered functions.** Activated on the fly to enrich video workflows with additional audios, subtitles, metadata.
- **Real-time analytics and monitoring dashboards.**
- **Comprehensive broadcast and OTT protocol support.** ST-2110, MPEG-TS, SRT, HLS, DASH, RTMP, WebRTC.
- **Dynamic Ad Insertion.** SCTE-35.
- **Enterprise-grade redundancy and failover.**
- **Security.** End-to-end protection leveraging leading cyber tech and industry standard best practices.
- **Easy migration from legacy platforms.**



At-a-Glance

- Microservices, Kubernetes/OpenShift, API-native architecture.
- On-Prem, private, public cloud or hybrid deployment, with seamless migration.
- Cross-platform common software foundation.
- Centralized interface and orchestration for workflow control and monitoring.
- Instant onboarding and role-based access.
- Consumption-based or capacity-based licensing, with usage tracking.
- 24/7 support, global expertise.

Streaming

Ingest	Playout	Transcode	Package	Encrypt	Origin
					
MBTS/ATS sources MPEG-2/AVC/HEVC AAC/AC-3/AC-4 TXT, DVB-SUB, CC Uncompressed sources 2022-6 2022 ST 2110 2022-7 Source redundancy Protocols SRT, Zixi, RTMP Input file format TS, MXF, MP4, MOV*	Live and file Primary event 8 layer of graphics On the fly transcode SCTE-35 generation Clean & Dirty option Playlist format BXF / OPC Web Monitor UI LiveView (feeds & output preview) WebRTC Timeline / Grid view	ABR Transcoding Live and file Up to UHD Video Codec AVC, HEVC, VVC Audio Codec AAC, HE-AAC, Dolby NG (AC4)  	Packaging on the fly HLS (sTS & fMP4) DASH, CMAF, HSS RTMP (to social) Subtitle conversion WebVTT SMPTE-TT DVB Sub conversion through OCR DAI Annotation DASH/HLS low-latency Device-specific manifest	HLS - Native AES HLS - FairPlay HLS - PlayReady DASH-CENC HSS-PlayReady KMS integration using HKMS, CPIX or Widevine API Manual configuration of keys and metadata	Pull Live Time-shift Catch-Up TV nPVR shared copy VoD Push (Live only) WebDAV for: HLS/DASH /HSS HTTP POST for HSS RTMP/RTMPS

Broadcast

Ingest	Playout	Transcode	Stat-Mux	Multiplexer	Encrypt
					
MBTS/ATS sources MPEG-2/AVC/HEVC AAC/AC-3/AC-4 TXT, DVB-SUB, CC Uncompressed sources 2022-6 2022 ST 2110 Source redundancy Protocols SRT, Zixi, RTMP	Live and file Primary event 8 layer of graphics On the fly transcode SCTE-35 generation Clean & Dirty option Playlist format BXF / OPC Web Monitor UI LiveView (feeds & output preview) WebRTC Timeline / Grid view	SD / HD / UHD MPEG-2, AVC / HEVC Premium Live transcoding   PIP FOR IPTV	Mixed MPEG-2 / AVC / HEVC SD, HD, UHD Seamless encoder switching Chain redundancy	PSI/SI table Generation & Manipulation Remux Tables Video / Audio sync adjustment Teletext and DVB-Sub pass through PID re-mapping Multicast delivery Service redundancy 1+1 mux redundancy	DVB-CSA V2/V3 External EIS AES Integrated with all CAS vendors

Flexible Business Model

- Usage-based or capacity model for total agility.
- With a prepaid capacity model, you can shuffle spending at any time based on your business needs.
- Easily shift your focus and resources from one subsystem to another: broadcast to OTT, HD to UHD, 24/7 channels, transcoding to origin delivery.
- You have the freedom to decide, without the hassle of procurement. It's frictionless.