

Imagine XVR™ Playout Engines

Elevating Video Delivery



Imagine XVR™ is a powerful, software-based playout engine designed to meet the evolving demands of modern broadcast and media operations. Built for exceptional flexibility, scalability, and efficiency, XVR supports seamless deployment across ground-based environments, enabling broadcasters, scale, and manage their infrastructure dynamically from a unified platform.

XVR delivers operational flexibility that supports on-premise deployments on a common foundation. Broadcasters can adapt rapidly, spin up resources for specific events, and maximize infrastructure utilization through fast reconfiguration and tailored channel setups.

Backed by Imagine's decades of experience powering top-tier broadcast operations, XVR delivers broadcast quality video, audio and graphics. XVR supports diverse formats—from 720p to 1080P, with a broad codec and container compatibility for both ingest and playout.

Both the XVR Playout and Ingest channels provide dynamic conformance – performing up/down/cross, deinterlacing, AFD and other video and audio format conversions on the fly to conform the original content into the desired output format.

Built for cost-effective operation, XVR lowers deployment overhead using standard technologies like Linux OS, Debian packages, and familiar file systems. The platform is DevOps-suitable, for automated software deployment and scalable infrastructure.

XVR's channel density optimization ensures efficient use of compute resources—maximizing throughput. A single operations team can manage broad deployments efficiently.

XVR supports SMPTE ST2110 and NMOS compliant registration ensuring readiness for current broadcast models. Its secure integration APIs ensures a smooth interoperability with Imagine automation and third-party systems.

With a focus on modern security, XVR runs on secure, patch-managed Linux environments. Software upgrades and patches are streamlined through Aviator Orchestrator, maintaining reliability and uptime.

Offering market-leading scalability, XVR supports dense, complex playout environments. Whether managing a single channel or hundreds, XVR empowers broadcasters to deliver high-quality content—anywhere, at any scale, with confidence.

IMAGINE XVR KEY FEATURES

Ingest & Playout

- Up to 8-channels bidirectional playout and ingest
- Subtitle and caption support: EIA-608/708, DVB Subtitle, Teletext
- MPEG-DASH proxy creation during ingest
- Local and dedicated indexing and metadata support



Control & Integration

- Ingest and Playout control via:
 - VDCP (including 3rd party integration)
 - Native REST API
 - ADC & D-Series
- Integrated playlist and preview tools
- Integrated Web UI for manual control
- WebRTC preview stream support
- REST & WebSocket APIs for system configuration, control, and metadata management

IMAGINE XVR KEY FEATURES CONTINUED

Broadcast IO	
IP Inputs	Up to 8 (1080P max) Inputs SMPTE ST 2110
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ST 2110	ST 2110-10, -20, -30, -40, -7
Video Formats	720p, 1080i, 1080p
Colorimetry & Transfer Characteristics:	SDR Rec:709
Scan Rates (FPS)	59.94, 50, 29.97, 25
Audio Format (uncompressed)	PCM (16, 24 bit, 48 KHz) 16 channels per video
Aspect Ratios	16:9
Dynamic Conformance	Up/down/cross conversion support AFD aspect ratio conversion Port-based aspect ratio conversion
Closed Captioning	EIA-608/708, DVB Subtitle, Teletext
Timing	
Standard	SMPTE ST 2059-2 (PTP)
Media Format & Codec Support	
Playback:	
Containers:	MXF, MOV, TS, MP4, LXF, GXF
Codecs:	XDCAM, AVC-Intra, AVC Long GOP, XAVC, DVCPro, ProRes, DNxHD
Ingest:	
Containers:	MXF, MP4, MOV, TS
Codecs:	XDCAM, AVC-Intra, AVC Long GOP, XAVC, DVCPro
Control Integration	
Automation Control	VDCP over IP
Automation Control	Aviator Channel Control Protocol (ACCP)
NMOS	NMOS IS-04 V1.2, IS-05 V1.0
Monitoring & Logging	
Log Aggregation and Forwarder	Loki
Metrics Monitoring	Prometheus Metrics Exporter

ORDERING INFORMATION

XVR ST 2110 PLAYOUT & INGEST SOFTWARE ORDERING INFORMATION

XVR-HD-I	Single channel HD (720p, 1080i) license for ingest record
XVR-HD-P	Single channel HD (720p, 1080i) license for playout
XVR-HD-PI	Single channel HD (720p, 1080i) license, can be used for playout or ingest record
XVR-FHD-I	Single channel 1080p license for ingest record
XVR-FHD-P	Single channel 1080p license for playout
XVR-FHD-PI	Single channel 1080p license, can be used for playout or ingest record