

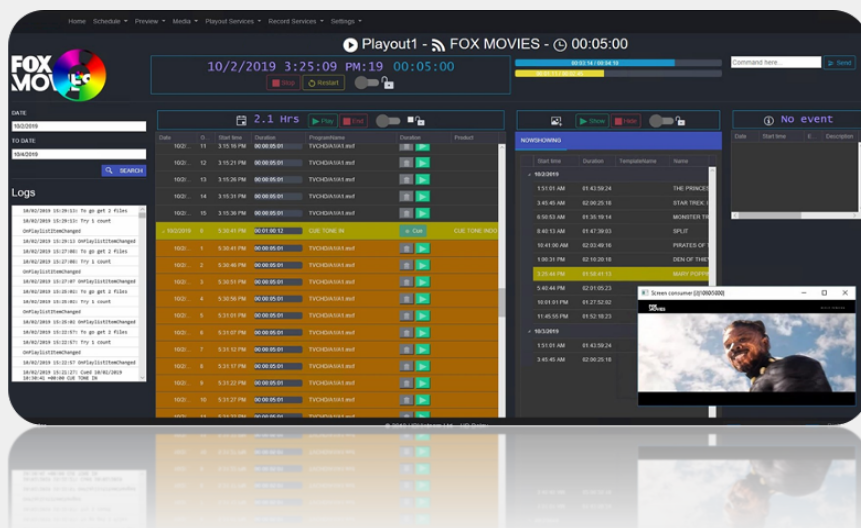
LIVE_CENSORSHIP

LIVE_CEN

The **LIVE_CEN** is a powerful integrated AD Insertion solution from small, single-channel to large, multichannel environments. It combines the best of the world's AD insertion, Time delay, branding, graphics, file server, storage capabilities in an entirely software-based environment.

LIVE_CEN Video Server simplifies the Live Censorship and Ads Localization operations, it automates almost all tasks of operators such as Ad insertion, Black frame detection and replacement, File movement, System monitoring and sound alarming...

The **LIVE_CEN** is a new generation of Delay Video system, tailored for channel origination and manipulation, with a premium quality software codec. With its advanced graphics, sophisticated built-in automation core, integrated asset manager.



LIVE_CEN is the software-based system with intuitive web-based client user interface, supports both SDI and IP transmission, localization and multi-language support, ready to deploy on a Cloud based environment. **LIVE_CEN** is designed in modules, each module in **LIVE_CEN** processes a specific task. This design brings the stability and cost-effective solution.

LIVE_CEN provides the features that can be applied for any customers' request:

- Delay Video server
- Ad-Insertion
- Graphics/Branding and Subtitling
- Broadcast Evidence Recorder
- Monitoring & Alarming
- Streaming Over IP (Multicast TS over UDP)

Features

Live Censorship Solution designed with benefits:

- ❖ Client / Server operating with Backup and Clone option available (1+1 or M+N)
- ❖ Scalable solution with system scalability to more channels and users without configuration changes

- ❖ **LIVE_CEN Video Server**
 - Record Service: Recording TS Live sources into TS file clips on the internal storage.
 - PlayBack Service: Playout the recorded TS file clips
 - Perform A/V processing to insert graphics, video, sound effects
 - Server continuously plays ingested material during ingesting
 - Support both SDI and IP over UDP
 - Insert TVAd Clips by using both CueTone triggers and Playlists
 - Built in Broadcast Evidence Recorder, evidence material can be inspected from web browsers
 - CueTone types support: DTMF tone, SCTE-104, SCTE-35

- ❖ **Censorship Client**
 - The censorship client is Web based User Interface, connected to the server to make operations.
 - User interfaces include: Record, Preview, Playback Screen.
 - Perform control commands as start, stop, insert, Mark In/Out...
 - Multi language User Interface, support English and Vietnamese
 - Web based, intuitive and easy to use User Interface for configurations and operations.

Hardware Platform

Model	PRIME_C409
Operating System	1+1 redundant 256GB / 512GB SSD - Windows
CPU Type	Dual Intel® Xeon® 8 Core
Memory	64GB
GPU Type	NVIDIA 6GB
Video Drive	4 drives 2.5" Hot-swap 960GB SSD RAID-5 (2.88 TB useful capacity).
Network	4 ports 1GbE
I/O	SDI: 4 x 3G/HD-SDI bi-directional connections. IP: MPEG2 TS, H.264 or MPEG2 video
IO Video Formats	625i, 525i, 720p, 1080p, 1080i SMPTE 292M, SMPTE 259M, SMPTE 296M
Aspect Ratios	16:9; 4:3
File Wrapper	MXF, MP4, AVI
Video Compress	XDCAM HD, DNxHD, Apple ProRes, AVC-Intra, MPEG-2, XAVC Intra and Long GOP
Audio Formats	24-bit PCM, 48kHz
Protocol	VDCP Over IP and Native API
Power Supply	Hot-plug, Redundant Power Supply (1+1)
Form Factor	2U
Warranty	1, 3, or 5 Year Warranty

LIVE_CEN video server Solution is designed as modules to bring stable and cost-effective solution

CEN_DELAY License

HD Video delay Editor(Time Delay), Intuitive censoring software with preview video monitoring on incoming live event on-air, with scheduled delay Software license allows delaying 1 channel (normally from 5 to 15 minutes, depending on customer's requirements).

- Delay time can be preset and changed during onair.
- Minimum delay from 1 second.
- Preview with recorded contents before on-air. The operator inserts other contents during monitoring.

CEN_AD-INSERT License

Regional AD-insertion: This license active HD Video inserting for 1 channel. It uses to broadcast and replace incoming signal with new content when cue tone or manual system is scheduled and fully integrates with automation workflow

- Adding media application: inserting Clips on the recorded TS file clips before playback.
- TVAd Schedules are automatically inserted by using CueTone trigger or at specified time points as well as inserting manually.
- TVAd Clips playlists can be created manually or imported from excel files.
- Clips are transferred to video servers via FTP connection, support Active and Passive mode (FXP: File Exchange Protocol), up to 20 concurrent transactions.
- Video File: MPEG-2 Part 2, MPEG-4, H.264 (MPEG-4 AVC)

CEN_SO-INSERT License

Sound insertion

- Overriding sound effect on the recorded TS file clips before playback.
- Muting audio channels on the recorded TS file clips before playback.

CEN_CG+ License

Graphic/Branding 3G/HD CG to overlay Logo, Crawl, ticker active CG

- Used to insert CG, logo, pop-up into Live signal.
- Creating CG, logo, popup for scheduling and Play the CG in the playlist. Support import CG Playlist from excel files.
- Inserting logo, popup into the recorded TS file clips before playback.
- Masking for prohibited images into the recorded TS file clips before playback.

Feature support

- o Local Popup, Logo
- o Bit depth: 12 bit per-RGB component, 8-bit alpha channel
- o Still Images: BMP, JPG, PNG, TIF, TGA
- o CG title: Channel bug, Program Bug
- o Unlimited CG Layers
- *Subtitling.* Insert subtitles with cip, ass, srt standard with scheduled or preselect insertion point on the recorded TS to insert subtitles.

CEN_ER License

Broadcast Evidence Recorder (Optional). This license allows recording 1 channel

- Use to record the broadcast signal in low resolution media for Broadcast Evidence
- Overlay timecode on the evidence media
- Evidence media can be viewed via web browsers and can be integrated into third party MAM systems.

CEN_IP_Live+ License

Streaming Over IP (Multicast TS over UDP)

- Use this option to work with Video over IP environment
- Support Streaming HD/SD Video: MPEG TS, RTP, UDP
 - Video Compression : MPEG-2, H.264/MPEG-4
 - Audio Compression: MPEG1-L2, MPEG-2/MPEG-4 AAC-LC.

CEN_Ctrl License

Delay Web Control

Full control of the delay system over the web. Low-res/ high-res streaming for preview and distribution. Control include: Censorship, Commercial insertion, pop-up insertion, local content replacement

CEN_MON License

Monitoring & Alarming

- Use to monitor the system health and notify alarm to operators whenever errors occur
- Working with N+M redundant configuration environment
- Alarming using sound with speakers.

INTEGRATED SERVICE

INT-LIVE_CEN License Installation and integration service (Online service) video server live censorship, inserts ads

- Metadata sync service engine that integrates with production MAM via APIs for media search
- Media sync service engine that integrates with production MAM via APIs to automatically copy media to video server
- Installation service that connects a live Censorship system to a production MAM to retrieve files, metadata
- Installation service to configure live censorship features for video servers
- Web-based Media Asset Management option for Live Censorship system. Users have full control on scheduled playout clips, Ingest clips.

SPARE VIDEO DRIVES

Model	SAT-SSD-960GB	SAT-SSD-1.92TB	SAT-SSD-3.84TB
Function	SATA SSD spare for Video server	SATA SSD spare for Video server	SATA SSD spare for Video server
Interface	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
capacity	960 GB	1.92 TB	3.84 TB
Write	520 MB/s	520 MB/s	520 MB/s
Read	550 MB/s	550 MB/s	550 MB/s

ABOUT US

HD Ultrasoft is recognized as the most simple and complete solution provider for distributed post-production of any TV channel. Our highly qualified staff are able to provide solutions for total automated file workflow and station management solutions for any existing infrastructure. The total new concept of a direct Database integration/ synchronization on TV stations allows real-time feedback between Playout- Production- Sale