



SL NEO Platform

Compressed Video Playout, Recording & Local Insertions



- ▶ Local Insertions & Ad Replacement
- ▶ High-Density Performance
- ▶ Flexible Re-Encoding Modes
- ▶ Optimized for Splicing Workflows

Broadcast-ready without re-encoding

Overview

SL NEO Compressed Video Playout, Recording & Local Insertions is a high-performance solution for ingesting, recording, and playing out encoded video streams without unnecessary decoding or re-encoding. Designed for IP-centric broadcast, IPTV, and OTT workflows, it enables fast turnaround, precise control, and seamless SCTE-based local insertions.

The system supports live pass-through, file-based playout, and hybrid workflows, allowing broadcasters to mix live streams with compressed content while maintaining minimal latency and maximum efficiency.

Built as part of the SL NEO Media Platform, the solution integrates seamlessly with graphics, delay, QC, and automation modules.

Highlights

Compressed Video Playout

Play encoded media directly from files or live inputs, minimizing processing latency and preserving original quality.

Local Insertions & Ad Replacement

Insert local ads, promos, or regional content into live streams using SCTE-35 cues, playlists, or manual triggers.

Live Pass-Through & File Intermixing

Seamlessly combine live compressed streams with file-based content within a single playlist.

Flexible Re-Encoding Modes

Operate in no re-encoding, GOP-boundary minimal re-encoding, or full re-encoding modes depending on workflow needs.

IP-Optimized Architecture

Designed for cloud, remote playout, and OTT environments with native IP input/output support.

High-Density Performance

Eliminates re-encoding to maximize channel density and reduce CPU load, enabling more streams on the same hardware.

Encoder Independence

Allows customers to use their own encoders and custom compression settings by working directly with compressed content.

Key Features

► Direct Stream Capture & Recording

- Capture compressed streams from:
 - ▷ IPTS (UDP, RTP, SRT, RIST, Zixi)
 - ▷ ASI
 - ▷ RTMP, HLS
 - ▷ Online sources: YouTube, Facebook, Twitch
- Record captured streams into MP4, MOV, MPG, TS, AVI
- Backup URLs for capture sources with automatic source switching

► Compressed File Playout

- Playlist-driven playout of MP4, MOV, MPG, TS, AVI files
- Fast clip trimming without re-encoding
- Manual or API-based playlist control
- Jump to any playlist item within 2 seconds

► Multi-Bitrate & Multi-Profile Support

- Playout of ABR-style content from multi-bitrate file sets
- Up to:
 - ▷ 48 single-bitrate channels per server
 - ▷ 16 multi-bitrate channels per server

► SCTE-35 Integration

- SCTE-35 cue-tone generation
- Cue-triggered insertion of compressed file content into live streams

► ANSI/SCTE 223 Integration

Defines safe splice points in compressed streams, enabling accurate ad insertion and seamless publishing to external packagers — including multi-bitrate delivery from encoded asset sets — with integration for Origin packagers such as Unified Streaming.

► Built-In Publishing & Monitoring

- Native RTMP and HLS publishing
- HTML5 web preview for inputs, outputs, and playlists
- LAN-based stream monitoring

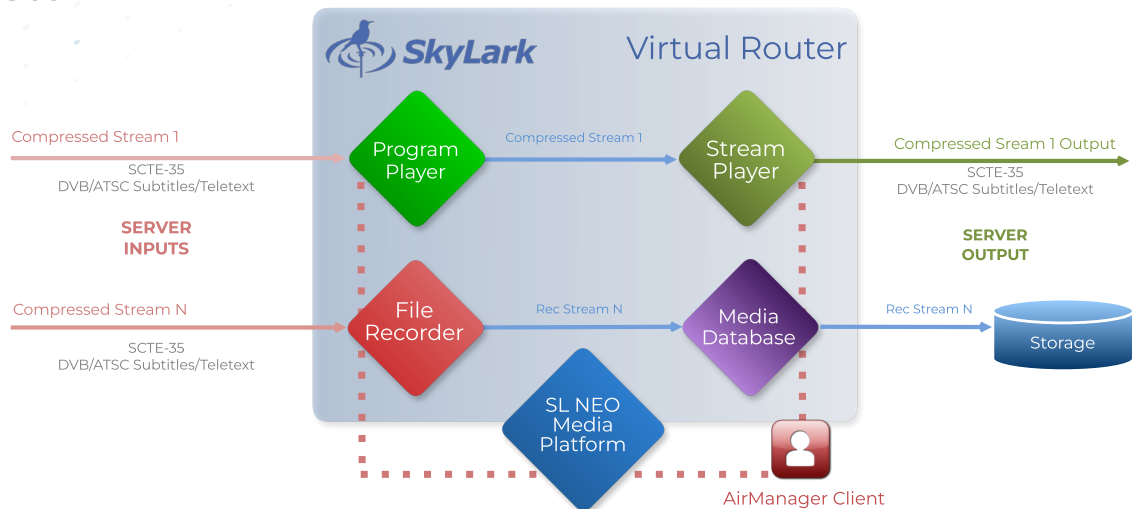
► DVB Subtitles & Audio

- DVB-TTML and DVB-SUB bitmap subtitle support
- DVB-SUB bitmap OCR and conversion to SRT, supporting all languages
- LOAS/LATM audio support for DVB workflows

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Ecosystem



The SL NEO Compressed Video Playout, Recording & Local Insertions is fully integrated into the SL NEO media services platform — a modular, software-defined environment where specialized modules operate together in real time across one or more hardware platforms.

Additional modules — including Program Player, Stream Capture, Transfer manager and other workflow components — can be integrated to create a fully tailored broadcast solution:

- ▶ **Program player**
For playout content with graphic elements in real-time
- ▶ **Stream capture**
For capture fill+key graphic sources
- ▶ **Transfer manager**
For copying and validating all media files for playout
- ▶ **SL NEO Base Module**
For coordination, management and control for all the system

Use Cases

- ▶ **Regional & Local Ad Insertion**
Insert regional commercials into national or global feeds using SCTE cues or manual triggers — without re-encoding the main stream.
- ▶ **IP-Centric Playout Nodes**
Deploy lightweight playout points for OTT, IPTV, and remote broadcast operations without SDI infrastructure.
- ▶ **Fast-Turnaround Channels**
Create channels from existing encoded assets, mixing programs, promos, and bumpers instantly.
- ▶ **Live Event & Hybrid Streaming**
Combine live feeds with encoded intros, outros, intermissions, or sponsor content in real time.
- ▶ **Telecom Operators and Streaming Platforms**
Perform high-density local insertions via stream splicing while reducing hardware costs by eliminating unnecessary re-encoding and maximizing server efficiency.

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Specifications

SYSTEM

Chassis	2U - 4U, dual hot-swap power supplies
CPU	1 or 2 × Intel Xeon or AMD Epyc Series
Memory	48 / 96 GB DDR4
System Drive	SSD for OS
Network	2 × onboard 1GbE
Storage	Built-in RAID-10, 4 or 8 × SAS 3.5" RE drives (4 or 8 TB), useful capacity
OS	Windows Server

Channels

Mode	Single-bitrate	Multi-bitrate
Channels	1 - 48	1 - 16

Video Formats & Color Spaces

Formats	625i/525i, 720p, 1080i/1080p, 2K 2048×1080p, 2160p
Frame Rates	25 / 29.97 / 50 / 59.94 / 60 fps
Color Spaces	BT.601 / BT.709 / BT.2020, HDR: SMPTE ST 2084, ARIB STD-B67

I/O Streams: Interfaces, Protocols, Codecs

Input Sources	IPTS (UDP, RTP, SRT, RIST, Zixi), ASI, RTMP, HLS, YouTube, Facebook, Twitch
Record format	MP4, MOV, MPG, TS, AVI
Output Formats	IPTS (UDP, RTP, SRT, RIST, Zixi), RTMP, HLS, Custom Web-pages (HTML5 Video)
Video Codecs	MPEG-2, H.264, HEVC

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Environments

Re-Encoding Modes	None, GOP-boundary, Full
Playlist modes	Mix live pass-through with files, seamlessly
Control Interfaces	Desktop client, Web UI, API
Publishing Support	Native RTMP & HLS server EBP (SCTE 223)
SCTE 35 Integration	Cue detection Compressed insertion

Input Ancillary & MPEG-TS Data

Teletext / CC	OP-42 / OP-47 WST Teletext; CEA-608 / CEA-708 Closed Captions
Subtitles / EPG	DVB-TTML, DVB / ATSC subtitles, EPG; DVB-SUB bitmap OCR & SRT conversion (all languages)
MPEG-TS Audio	LOAS/LATM audio support for DVB workflows
Markers	SCTE-35

Protocols & Device Support

Monitoring	SNMP (SL NEO Software)
Automation	REST API, Schedule, SCTE-35/223 (EBP)

Contacts



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