

DATA SHEET

## Managed services for linear channel management

Technical specs

LTN Cue & Connect are managed services that provide our customers better scale, agility, reliability and revenue leverage associated with the ad-supported distribution of linear TV channels. Both services utilize proven linear metadata software, a highly trained team and a 24/7 network operations center (NOC) to ensure our customers have more profitable channel distribution.

Our fully managed linear metadata services are able to read, interpret, repair and apply the right message at precisely the right time for inserting programs, national ad breaks, local ad breaks and targeted ads in a live linear channel feed delivered on any platform.

The services connect playout, compression, transport and cross-platform SCTE 35 distribution workflows according to the needs of channels and distributors. They are also designed to be compatible and expandable with the integration of other industry standard workflows such as SCTE 104 and 130. Interoperability also extends to workflows involving IAB VAST and SMPTE 2022, 2038, and 2110 use cases. Please speak with a Solutions Architect for any questions about LTN Connect or LTN Cue.

### LTN Cue vs LTN Connect

The key differences between these services are outlined in a table below.

LTN Cue	LTN Connect
Integrate via LTN Appliance	Integrate via on-prem installation
Ingest linear metadata from playout	Ingest linear metadata in multiple ways
Includes LTN Global NOC support & video transport at no additional cost	Includes LTN Global NOC
Roadmap focused on scaling and optimizing channel versioning	Roadmap focused on complex playout scenarios

OVERALL SPECIFICATIONS

## LTN Cue

The following are specifications for the LTN Cue service. This service combines Video Transport with SCTE 35 decoration on the LTN Network.

<b>Simple ingress and egress</b>	LTN Cue leverages the LTN Network media facility footprint, including more than 3,000 connected sites globally including broadcast stations, TV studios, sports venues, cable and satellite head-ends and national broadcasters.
<b>Live ingest formats</b>	All major contribution and primary distribution video formats including HD SDI and MPEG2 TS video are supported.
<b>Video delay tolerances</b>	Sub-frame accuracy is achievable using certain playout automation systems. In AI-driven auto-boundary detection workflows, a 4-second delay may be introduced to generate the correct amount of pre-roll for live events.
<b>Global video transmission</b>	No additional fees or requirements. Fully monitored, redundant, secure, and low latency video (<200 milliseconds) globally.
<b>Monitoring &amp; reports</b>	24/7 NOC monitoring and support against leading SLAs. Verification reporting provided monthly.
<b>SCTE 35 specifications</b>	LTN Cue is restricted to a single playout integration method using secondary events in the schedule.

OVERALL SPECIFICATIONS

## LTN Connect

The following are overall specifications for the LTN Connect service. LTN Connect receives critical timing metadata from many different sources and manages the precise signaling requirements required by downstream distribution to ensure a seamless TV experience.

- SCTE 35 workflows including transport stream (TS), HTTP Live Streaming (HLS) and Dynamic Adaptive Streaming over HTTP (DASH)
- SCTE 104 insertion for and SDI / SMPTE 2110, 2022-6/7 workflows
- SMPTE 2038 workflows for integration of ancillary data in an MPEG-2 TS
- Event Signaling and Management interface (ESAM)
- Third-party inserters and encoders
- General purpose interface triggers and customized APIs for unique signaling needs

## LTN Connect

Core methods available for ingesting timing and playlist information.

LINEAR METADATA  
INGEST METHODS

<b>Playout automation</b>	Playout Automation controls video servers & routers to execute a time-based playlist into a Linear Channel.	Segment Boundary Markup Protocol (“SBMP”) exposes the LTN Connect API (and LTN Cue) to playout automation in a generic way. Most playout systems can implement this as a series of secondary / auxiliary playlist events that send commands to LTN Connect / LTN Cue over existing IP or serial drivers. <b>Popular playout systems include Imagine ADC, Cinegy Air, Pebble Beach Marina, Evertz Mediator, and iTX</b>
<b>Traffic system</b>	24/7 master programming schedules are created / stored in a traffic system.	LTN Connect can ingest CSV, Tabbed, XML or BXF files.
<b>Existing SCTE 104 &amp; 35</b>	Existing workflows may contain older SCTE 104 or 35 markers.	LTN Connect can read existing SCTE 104 and/or 35 markers and re-write them or act on them.
<b>Live red button</b>	For live events, a control room producer can have virtual or physical buttons to trigger timing.	Any application can send Segment Boundary Markup Protocol commands over TCP, HTTP or serial connection. General Purpose Interface can be used for a control room physical button.

## LTN Connect

OUTPUT FORMATS

Speak with a Solutions Architect for more information about connecting linear metadata into advanced TV workflows.

<b>MPEG2 TS</b>	LTN Connect can be inserted inline with an MPEG2 TS and output the same TS with SCTE markers added to the Ancillary Data PID.
<b>SCTE inserters</b>	Range of internal and 3rd party video cards, software inserters to support 35 and 104 insertion.
<b>Encoder APIs</b>	LTN Connect can drive most encoder APIs.
<b>Streaming workflows</b>	LTN Connect can generate all data necessary to drive any Dynamic Ad Insertion system using Manifest Manipulation (a.k.a. Server Side Ad Insertion - SSAI).

1. Often playout systems have this capability and do not require plugins. In some cases we have also integrated to playout APIs.

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**About LTN Global**

# LTN<sup>®</sup> Global is a worldwide leader in media technology that positions broadcasters and digital content companies to win the future of video.

LTN's universal media technology ecosystem unifies, optimizes, and automates video workflows, empowering customers to acquire, transform, deliver, and monetize content at scale. Drawing on our four pillars (Create, Command, Signal, and Transport), LTN's modular services streamline each stage in the digital and linear video chains, from production and publishing to transformation and transport. Backed by the world's fastest and most reliable IP video network, LTN is the trusted multicast partner for mission-critical, broadcast-quality content. LTN brings customers greater efficiency, agility, and creativity in delivering more content to more viewers, driving value from any source to any device and any platform, anywhere in the world. For more information, visit [ltnglobal.com](https://ltnglobal.com)