# PLAYBOX NEO

native cloud & broadcast solutions

Building on 25 years of successful innovation, PlayBox Neo Ltd. is advancing its role in the multi-platform future of broadcasting. Having pioneered the development of high-efficiency server-based and cloud-based playout, we are fully geared for today's world in which broadcasting is expanding to support every scale and type of one-to-many communication.

PlayBox Neo products and solutions power over 20,000 playout and branding channels worldwide.

Fully scalable, modular, open and available on as hardware or as a service, PlayBox Neo solutions are customer-oriented, easy to commission, logical to operate and highly robust. PlayBox Neo Suite is a professional media platform that enables centralized control, monitoring and administration of a multimedia workflow. PlayBox Neo Suite is a multi-user, multi-server environment that offers an enhanced user experience in a highly cost-effective package. Our server-centric product series is based on the PlayBox Neo Channel-in-a-Box system (AirBox Neo, TitleBox Neo, Ingest and Media Gateway). This turnkey solution integrates seamlessly with PlayBox Neo Suite to optimize your investment and enable a unified interface for future updates.

Flexible connectivity is vital in today's digital world. PlayBox Neo has integrated powerful solutions to scale and fit your workflow at a cost-effective price. Our broadcast product range can deliver output in baseband SD, HD or UHD SDI, in DVB/ATSC-compliant streams and in web-based formats such as RTMP. Simulcasting of SDI and one or multiple streams is also possible.

Our mission at PlayBox Neo is to help individuals, organizations and businesses throughout the world realize their full potential.
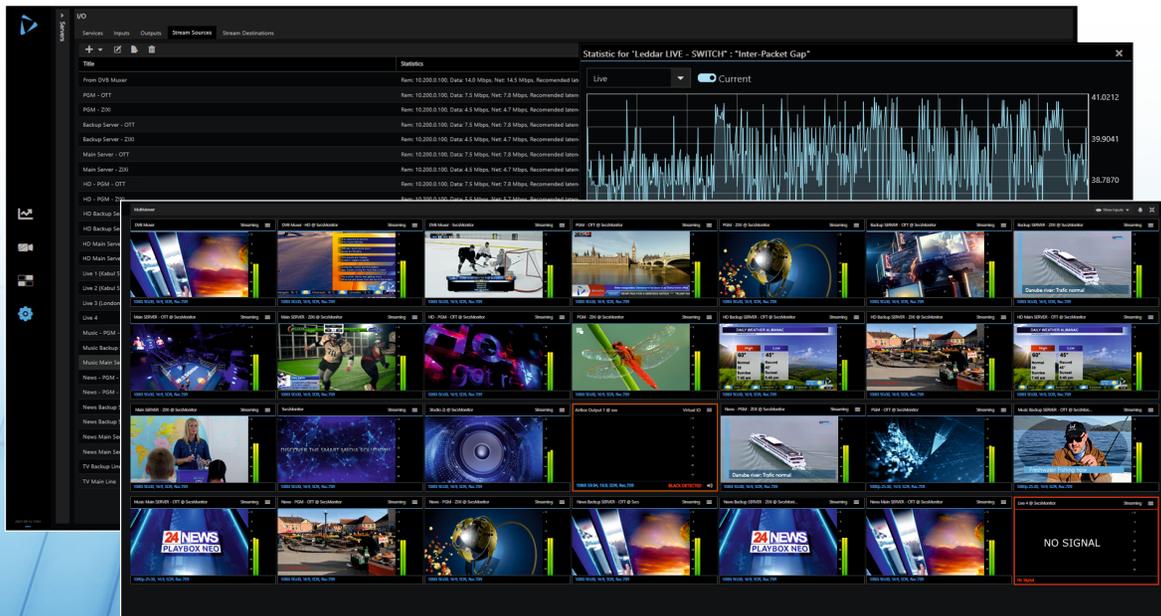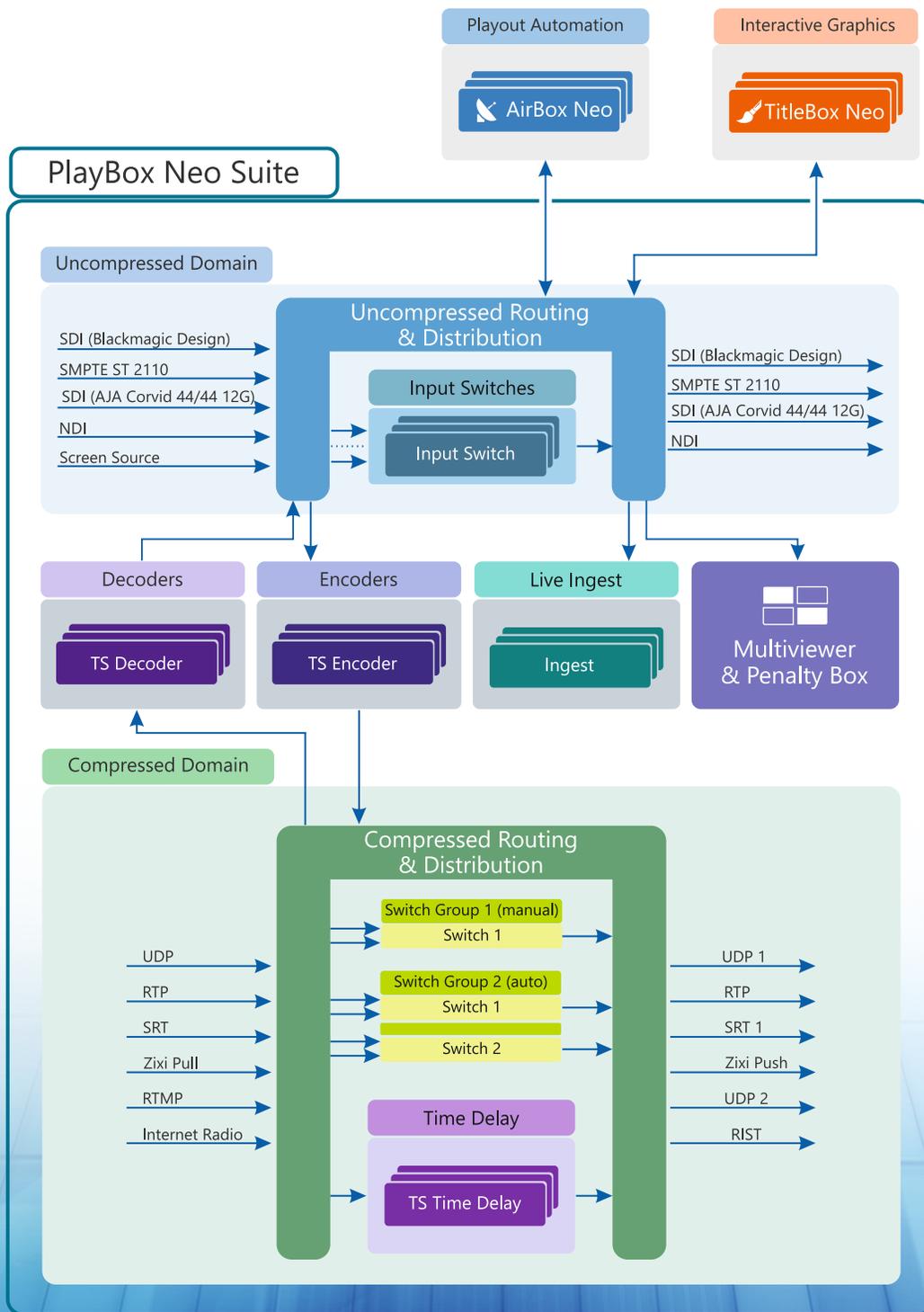
# PlayBox Neo Suite
## Next-Generation Media Platform

PlayBox Neo Suite is the newest addition to our range of smart media innovations. The platform is an extensive suite of solutions designed to streamline and enhance the workflows of modern media organizations, including TV channels, satellite operators, content creators, and OTTs.

PlayBox Neo Suite is a professional media platform – providing a focal point for any modern media, allowing effortless centralised control, monitoring, and administration of an optimised multimedia workflow. The current line of "Channel in a Box" products integrates seamlessly with PlayBox Neo Suite to get the most from your previous investment and to offer a unified interface for future updates to a completely homogeneous ecosystem. PlayBox Neo Suite is a multi-user, multi-server environment that optimises resources and enhances user experience.
The continuously growing number of components offers added functionality and efficiency to any workflow.

PlayBox Neo Broadcast Architecture

**Playout Automation**
AirBox Neo

**Interactive Graphics**
TitleBox Neo

**PlayBox Neo Suite**

**Uncompressed Domain**

Uncompressed Routing & Distribution

Input Switches
Input Switch

SDI (Blackmagic Design)
SMPTE ST 2110
SDI (AJA Corvid 44/44 12G)
NDI
Screen Source

SDI (Blackmagic Design)
SMPTE ST 2110
SDI (AJA Corvid 44/44 12G)
NDI

**Decoders**
TS Decoder

**Encoders**
TS Encoder

**Live Ingest**
Ingest

Multiviewer & Penalty Box

**Compressed Domain**

Compressed Routing & Distribution

Switch Group 1 (manual)
Switch 1

Switch Group 2 (auto)
Switch 1
Switch 2

Time Delay
TS Time Delay

UDP
RTP
SRT
Zixi Pull
RTMP
Internet Radio

UDP 1
RTP
SRT 1
Zixi Push
UDP 2
RIST

# Media Gateway

## Live Media Delivery and Distribution

Media Gateway is a live media delivery and distribution solution based on the PlayBox Neo Suite platform. It can be installed on-premises or in the cloud.

• Receives streaming sources from: TS UDP, TS RTP, SRT, ZiXi pull, RTMP, Internet radio

• Transmits to streaming destinations: TS UDP, TS RTP, SRT, ZiXi push

• Supports SDI and NDI input/output

• All non-TS stream sources are re-multiplexed to TS and can be transmitted as DVB/ATSC-compliant streams

• All stream sources can be decoded (SPTS and MPTS supported) and transmitted as NDI or SDI

• All stream sources can be transcoded including changing the audio layout, video standard, etc.
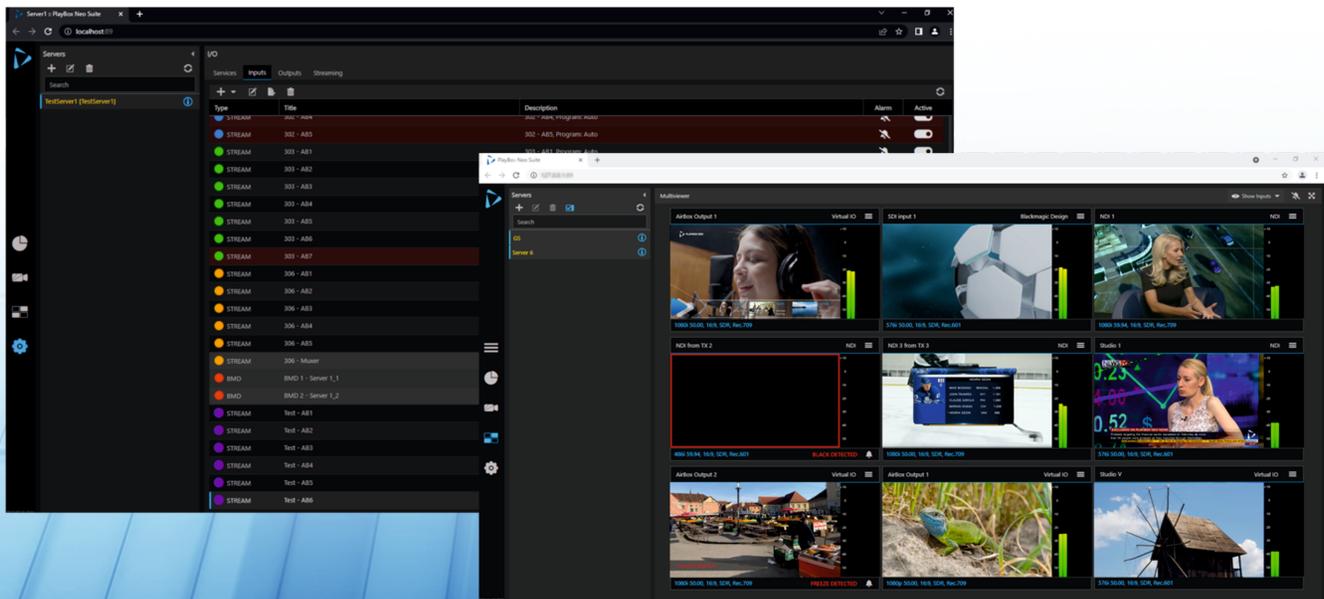
# Ingest
## Multi-Channel Ingest Solution

In an attempt to ensure a rich viewer's experience, broadcasters and post-production houses have to deal with receiving content from multiple live sources on a daily basis.

The Ingest application of PlayBox Neo Suite is a multi-channel – multi-server UHD/HD/SD live ingest solution that integrates into the production workflow of any television network, post-production facility or playout center.

The solution allows users to control multiple ingest channels, spread on multiple servers from a single web user interface. Functions such as input selection, ingest presets, file naming conventions assignments and auto-transfer functionalities are a single click away from the user.

# TS Time Delay
## Multi-Channel Time Zone Delay

PlayBox Neo TS Time Delay is a Transport stream Delay module for Time Zone Delays, Regional Delays and Disaster Recovery applications. Using PlayBox Neo Suite infrastructure, TS Time Delay can take input from any of the supported stream types and can delay the signal as much as it is needed starting from 1 second to days, week or months.

- Fully integrated in the PlayBox Neo Suite platform
- For single/multiple time zone delays, regional delays and disaster recovery applications
- Compressed DVB/ATSC TS Stream Delay
- Transparent to the Transport Stream - doesn't change any information from the TS source
- SPTS or MPTS delay from the same server
- Inputs: UDP, RTP, SRT, RTMP, Internet Radio, ZIxi Pull
- Outputs: Transport Stream in UDP, RTP, SRT, RTMP, Zixi Push

# AirBox Neo
## Playout & IP Streaming

AirBox Neo provides automated content streaming and broadcast playout for any kind of TV channel – cloud-based, satellite, cable head-ends, over-the-air broadcasters, corporate TV, internet-based TV and etc.

Via its scalable, extremely robust and reliable playout engine, AirBox Neo can easily mix a variety of media files and live inputs in one playlist. It also provides multiple SDI/IP streaming outputs simultaneously in different video standards up to 4K.

Endless freedom of operation - any changes to the playlist during on-air sessions are possible! Media can be trimmed, edited or repositioned. Live productions are streamlined to allow insertion and/or execution of various events or live streams into the playlist.

# TitleBox Neo
## Interactive Graphics

TitleBox Neo is a fully interactive 4k UHD/HD/SD Character Generator, suitable for broadcast & cable TVs, info-channels for hotels, schools, corporations, retail businesses, shopping malls, churches, airports, holiday resorts, theme parks and etc.

TitleBox Neo provides the following outputs:

• 4K UHD/HD/SD SDI internal keying or Fill & Key output

• 4K UHD/HD/SD Output over IP in conjunction with AirBox Neo IP Streaming output

• NDI output for integration with all NDI-enabled devices

Unlimited object layering all mixed in real time

Unlimited layering like Still text, Roll/Crawl; Logos, Animation image sequence; clocks, countdowns, timers; 2D objects, DVE, In/Out Transitions, Pictures & Banners; Video Objects Playback and etc. all mixed and blended in real time.
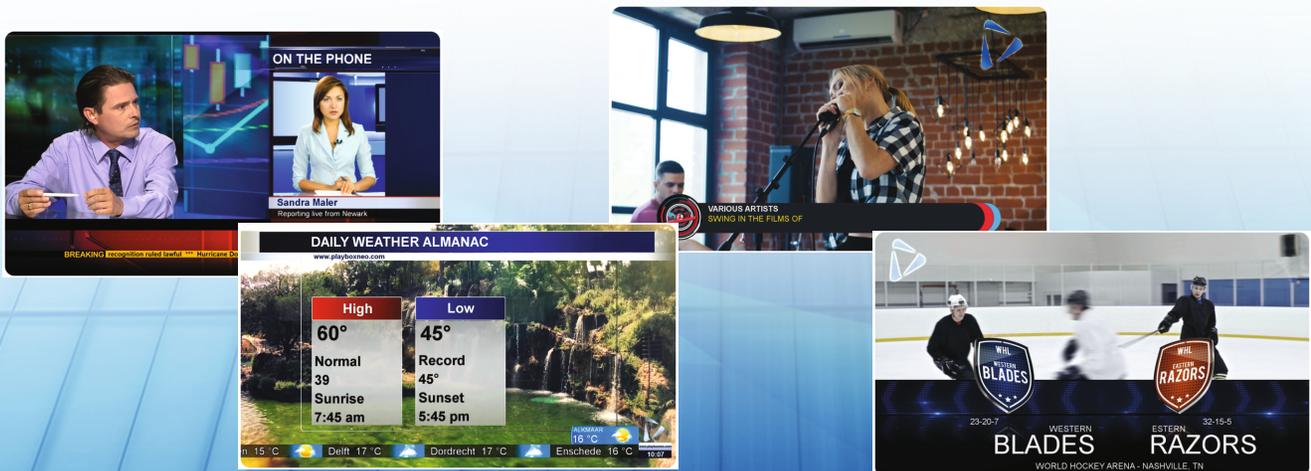
# ProductionAirBox Neo
## Production Playout

ProductionAirBox Neo provides content playout for News, Live shows, Studio screens and video walls, live production broadcasts and other places where video/audio content have to be displayed. It is designed to meet the high-reliability requirements of broadcast playout.

For live productions, any changes to the playlist during on-air session are possible! There are no locked clips. Every clip in the playlist can be trimmed or repositioned. Moreover, playout position can be changed on-the-fly with commands like next, jump or shuttle. Such changes are performed seamlessly without stopping current playout session. One server can be configured with up to four independent players. Each player has a separate playlist and playout control. All four SDI interfaces can be assigned as program or preview outputs. Single channel or Multichannel user interfaces are available to streamline the operation.

# TV Channel-in-a-Box

## World's Best-Selling Playout and Channel Branding Product Suite

PlayBox Neo Channel-in-a-Box is a turnkey playout server solution for broadcasting a single or multi-TV channel both available in HD or UHD. It provides a seamless workflow to keep a channel on-air by combining scheduling, ingest, playout, CG and interactive graphics, live media delivery and distribution within one box and remote tools to enhance QC checks, preparation and monitoring.

The output can be SDI or IP streaming and is suitable for a variety of applications including traditional broadcast TV, pay-TV, playout centers, satellite operators, etc.

By leveraging on the SaaS in the cloud or traditional platforms on-premises, PlayBox Neo Channel-in-a-Box offers playout automation with AirBox Neo, scheduling with ListBox Neo, interactive CG and graphics with TitleBox Neo, media Ingest and live media delivery and distribution with Media Gateway.
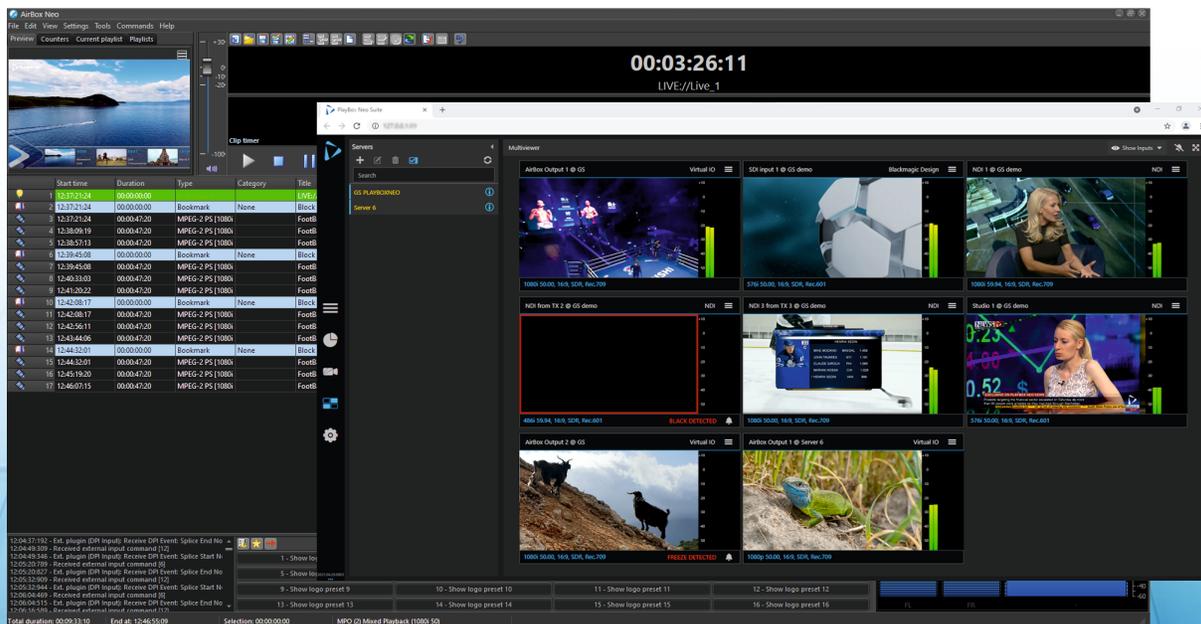
# AdBox Neo
## Ad Insertion

AdBox Neo performs Single channel/ Multi-channel digital ad insertion and can easily be scaled to meet the next generation of targeted advertising solutions that are driving the revolution in today's television advertising. Based on AirBox Neo, it delivers the power and scalability to meet the demands of today's rapidly changing advertising environment and is giving a quick ROI by providing the solution you want, at an affordable price.

• Perform ad or DPI insertion in UHD/HD or SD in/out workflows – both IP (SRT/UDP) and SDI
• SCTE-35 (For UDP/SRT) trigger & SCTE104 (for SDI) trigger support
• DTMF or analog Cue Tone support
• Installed on-premises, remotely at the headend/data center or in the cloud
• Complete solution that includes automation, video server and switching

## Basic Components Scheme

UHD/HD/SD SDI
(with SCTE-104)

**AirBox Neo**
Playout &
IP Streaming

**ListBox Neo**
Playlist
Preparation

UHD/HD/SD SDI
(with SCTE-104)

UHD/HD/SD IP
(UDP/SRT with SCTE-35)

Storage

Web-based
MultiViewer

UHD/HD/SD IP
(UDP/SRT with SCTE-35)

# Multi Playout Manager
## Remote Control & Monitoring

Multi Playout Manager (MPM) is a fully assignable monitoring and control system with rights management for multiple AirBox Neo channels from one or more internet-connected PCs locally or from anywhere in the world via IP.

MPM is a network  workflow solution created for multi-channel playout centers to monitor and control all channels locally and assign full or restricted user rights for any of the TV channels to one or more people to remotely monitor, control and view the TV channels from PC or Mobile Device.

MPM allows multiple operators with sufficient rights to monitor, control and view one or multiple channels schedules, programmes, media files and etc. and to even make live changes to the output when needed. MPM can be used in a simple or complex network infrastructure complete with full redundant operation when required.

**PLAYBOX NEO**
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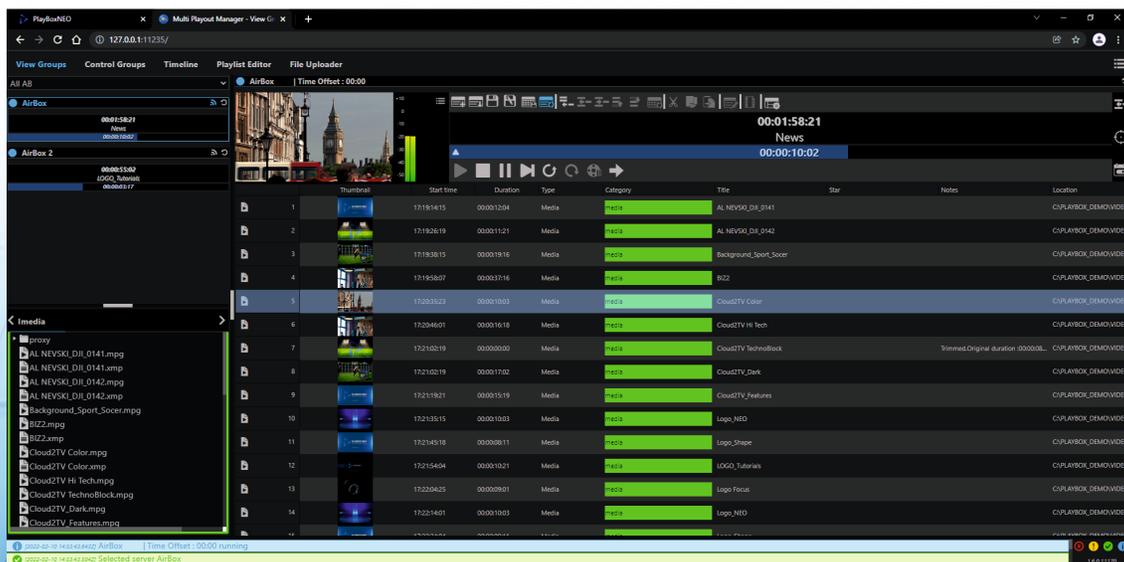
• Live Streams Management, Distribution & Delivery • Playout Automation

• Interactive Graphics • Live Ingest • Integrated TV Channel-in-a-Box

• Production Studio Playout • Ad Insertion • Disaster Recovery Playout

• MOS-Integrated Newsroom Playout Workflow • Remote Redundant Playout

• Transport Stream Time Delay • Free Ad-Supported TV Channel (FAST)

• Internet TV Solutions • Cloud, Hybrid and On-Premise Solutions

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