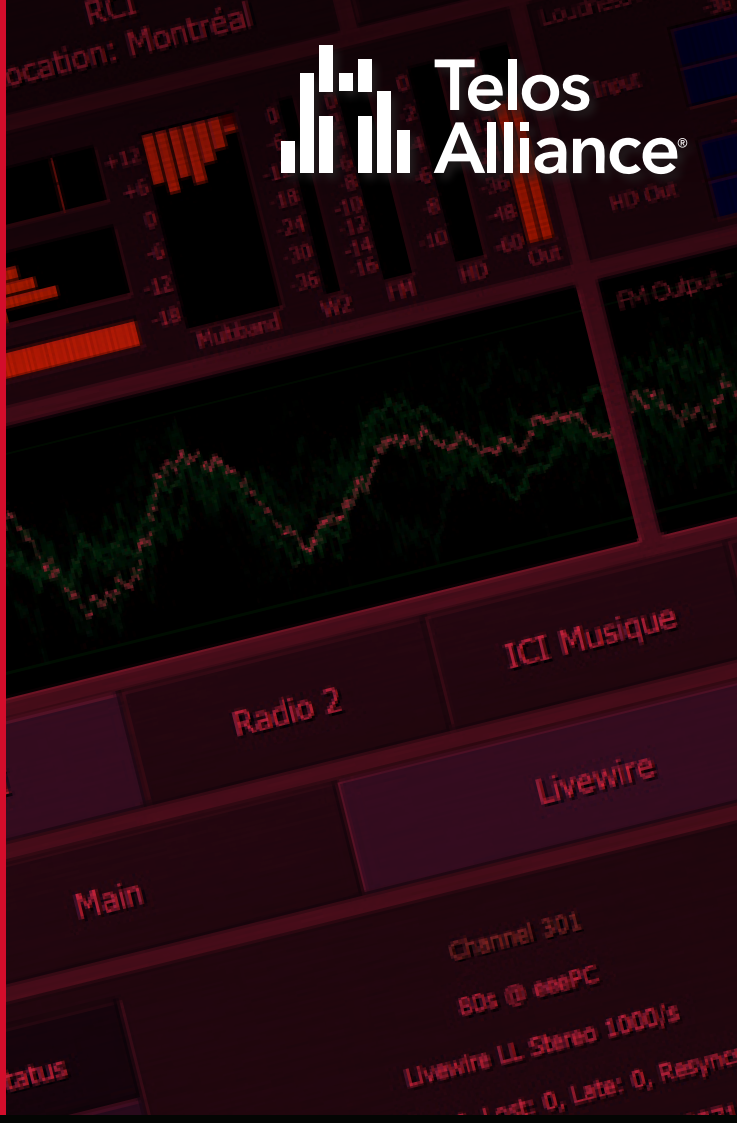
# Omnia Enterprise™ 9s

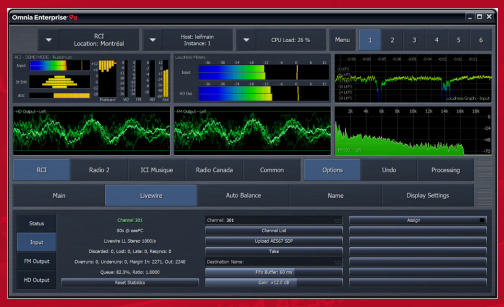
Omnia audio processors are the leading brand by a wide margin for both terrestrial and streaming broadcasters around the world. Adaptable to any environment, Omnia offers scalability and flexibility to match your specific broadcasting needs.

Meet Omnia Enterprise™ 9s, the high-density audio processing software solution designed to meet your rapidly changing infrastructure needs as you transition to virtualized environments.




## Omnia Enterprise™ 9s

High-Density Audio Processing Software



# 9s Adapts to Fit Your Changing Needs

## Scalable, Customizable, Centralized

Omnia Enterprise™ 9s combines product modules in a new and unique way to deliver the software-only, high-density solution needed by today's broadcasters. Each system can be customized to your needs, which allows you to make changes as your requirements change. 9s can be programmed for FM and streaming, for example, giving you the flexibility to quickly add specialty channels. As you add more streaming channels to your network, 9s adapts to fit your needs.

Centralize your processing by using 9s at the head end and transmit either L/R audio to each transmitter location or the full composite signal to the transmitter using the new Omnia MPX node.

## Virtualized Audio Processing

Each stereo program is processed by its own unique processing engine, allowing each program to be uniquely tailored to suit the program material, audience, and delivery method. A variety of factory presets are included and can be used as-is or serve as starting points for custom user presets.

"Basic" adjustment mode greatly simplifies dialing in the desired sound by combining multiple processing parameters with a handful of controls. For instances where it is necessary to access every available individual control, "Intermediate" and "Expert" modes are available.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# Virtually Customize Processing to Program Material, Audience, and Delivery Method

## Features

- **Undo** – Our unique method of processing audio that has been clipped during the mastering process and/or hyper-compressed dynamically as is the case with most music recorded in the past 20 years. Undo is a two-stage process that consists of a declipper that reconstructs audio peaks (thereby removing the resulting distortion present in the original content) and a multiband expander that adds dynamic range to highly compressed material.
- **Phase Processing** – Including an adjustable phase rotator to help eliminate distortion in asymmetrical voices and a phase scrambler to minimize distortion on certain instruments with strong odd-order harmonics.
- **Downward Expanders** – Fully adjustable multiband expanders help minimize noise present in recorded audio sources or via microphone in noisy studio environments.
- **Input AGC** – The first processing gain stage, typically used to compensate for varying input levels from the board or automation playout system. Features a sidechain control EQ circuit to make the AGC more/less sensitive to certain frequencies, useful for ensuring strong bass or dynamic female vocals don't cause "hole punching" artifacts in the processed audio.
- **Wideband AGC 1/2/3** – Additional wideband compressors that can either be "stacked" atop the Input AGC for additional gain control, located after the multiband processing stage, or used as dedicated bass compressors to customize bass texture.
- **Parametric EQ** – Six bands of fully adjustable equalization to customize the EQ curve ahead of the multiband AGC stage.
- **Stereo Enhancer** – A multiband enhancer that can fully manage the stereo image by widening material that has less L-R content and narrowing material that has more, providing a very customizable and consistent stereo image regardless of the original content.
- **Multiband AGC/Limiters** – User-selectable between two and seven bands to provide an output that is more faithful spectrally to the input audio or extremely consistent spectrally regardless of the input. A dedicated peak limiter rides atop each AGC band.
- **Band Mix** – The final means of adjusting spectral balance before the final peak limiters, providing further customization of the sound.
- **Final Limiter** – A two-band "brick wall" look-ahead limiter to deliver precise peak control.

Contact us at inquiry@telosalliance.com to customize your 9s High-Density Virtual Audio Processing Solution.

# Connect to Multiple Processors Simultaneously

## Input Routing

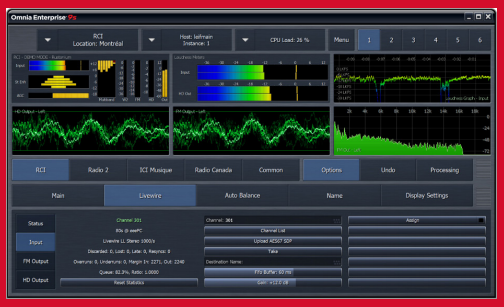
Each AES67 source available on the network is selectable from a Channel List and can be routed to any processing engine.

## Customized Displays

Our unique “NfRemote” software client runs on any Windows computer including tablets and provides access to all system, I/O and processing parameters anywhere a network connection is available. Multiple users can connect to the same processor at the same time and a single user can connect to multiple processors simultaneously, making remote management of multiple program paths easy and efficient.

NfRemote also features a highly customizable display to facilitate setup and processing adjustment. 9s also provides information about input and output levels, processing activity, LKFS loudness readings and graphs, and signal-specific analysis with tools such as a digital oscilloscope, FFT spectrum analyzer, and audio frequency RTA (real time analyzer). Up to six unique display pages can be built for each processing engine.

# Complete Network-Based Digital Ecosystem




## Livewire+™ AES67 and SMPTE ST 2110

Telos created its original Livewire technology back in 2001, but we also intentionally began the process of creating the AES67 standard by initiating the proposal of the standards project to the Audio Engineering Society in 2008.

Whereas AES67 strictly focuses on the audio stream format, Livewire can be thought of as a more complete network-based digital ecosystem for creating a "facility over IP" model that includes control, advertising, discovery, and GPIO contact closures over IP.

We are fully committed to embracing and implementing SMPTE ST 2110-associated protocols IS-04 and IS-05 for discovery and control, and ST2022-7 for redundant stream support.

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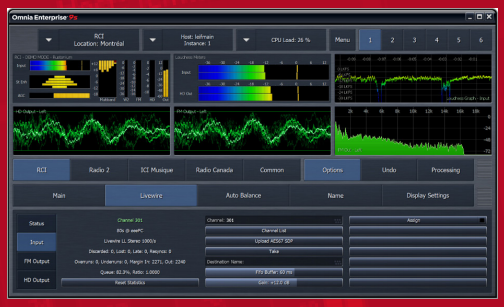

# 9s Is Deployed Faster Than Hardware Solutions

## Audience Measurement and Watermarking

The Telos Alliance currently supports a wide variety of watermarking tools and technologies not only through the Omnia brand for radio but via the Linear Acoustic and Minnetonka Audio brands for television. These include Nielsen watermarking for television, Kantar Media (formerly Civolution) watermarking for radio and television, and Verance watermarking for television.

## Configuration and Control

In addition to the NfRemote client application, 9s can be controlled and monitored via a comprehensive HTTP-based API. All functions available through the NfRemote application are available through the HTTP API. 9s also supports Ember+ capability along with IS-05.D.

## Changes with Your Application

With 9s and the suite of Telos Alliance customised software solutions, installing and deployment across your network has never been easier. Install and deployment time is much less than compared to traditional hardware-based solutions when rolling out a network wide change or upgrade. As you outgrow your server's capability, the cost of a server upgrade is a fraction of the cost of upgrading hardware across the network.

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1241 Superior Ave, Cleveland, OH 44114 USA | www.telosalliance.com | +1.216.241.7225