

# eyera Audio Monitoring Platform

## Highlights

- Audio monitoring solution for various input sources
- Monitor multiple audio streams at once in real-time locally and remote
- Fully customizable dashboards for optimal workplace integration



*eyera is an audio monitoring platform that offers audio and stream monitoring for different input sources and codecs as well as alarm and event logging. The monitoring dashboard provides an overview over all activities and an alarm and event history, ideal for broadcasters, radio studios or broadcast network operators.*

## Key Benefits

**Reliable:** 24/7 monitoring of input sources and alarm and event logging.

**Web-based:** No local installation required – simply access via browser.

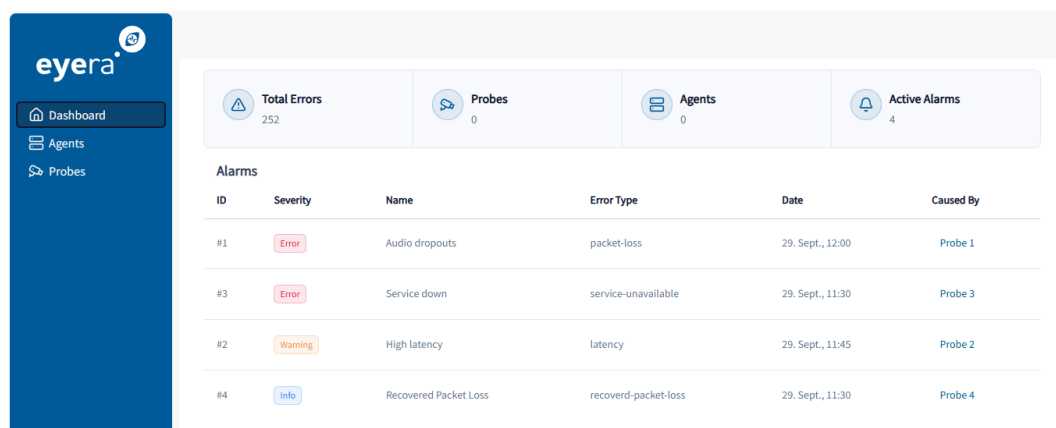
**User-friendly interface:** Customizable dashboard integration via Grafana.

**Interoperability:** Connection to various input sources like EDI and MPX as well as external data sources possible.

## Main Features

### Audio and stream monitoring

- Reception and decoding of various input sources
- Use live listening to monitor your audio streams via your web browser
- Customizable monitoring dashboard by Grafana
- 24/7 monitoring of audio levels, loudness measurements and codec parameters
- Remote monitoring for input received via external decoders
- Real-time visualization of status, level meters, silence detection, streaming parameters and metadata via the dashboard
- Alarm and event logging with integrated statistics





## Supported input sources

- AES67
- Ravenna
- Livewire
- Audio over IP (RTP)
- SRT/RIST
- EDI (ETI)/EDI (STI-D) (optional)
- MPEG-TS (optional)

## Supported codecs

- Linear PCM, G.711, G.722
- Opus, Ogg Vorbis
- MPEG 1/2 Layer 2, 3
- MPEG-2/MPEG-4 AAC-LC, MPEG-4 HE-AAC v1 & v2, MPEG-4/MPEG-D xHE-AAC
- MPEG-4 AAC-LD/ELD/ELDV2
- Enhanced aptX (E-aptX)
- DAB+ (optional)
- MPX (PCM) (optional)
- µMPX (optional)

## Use cases

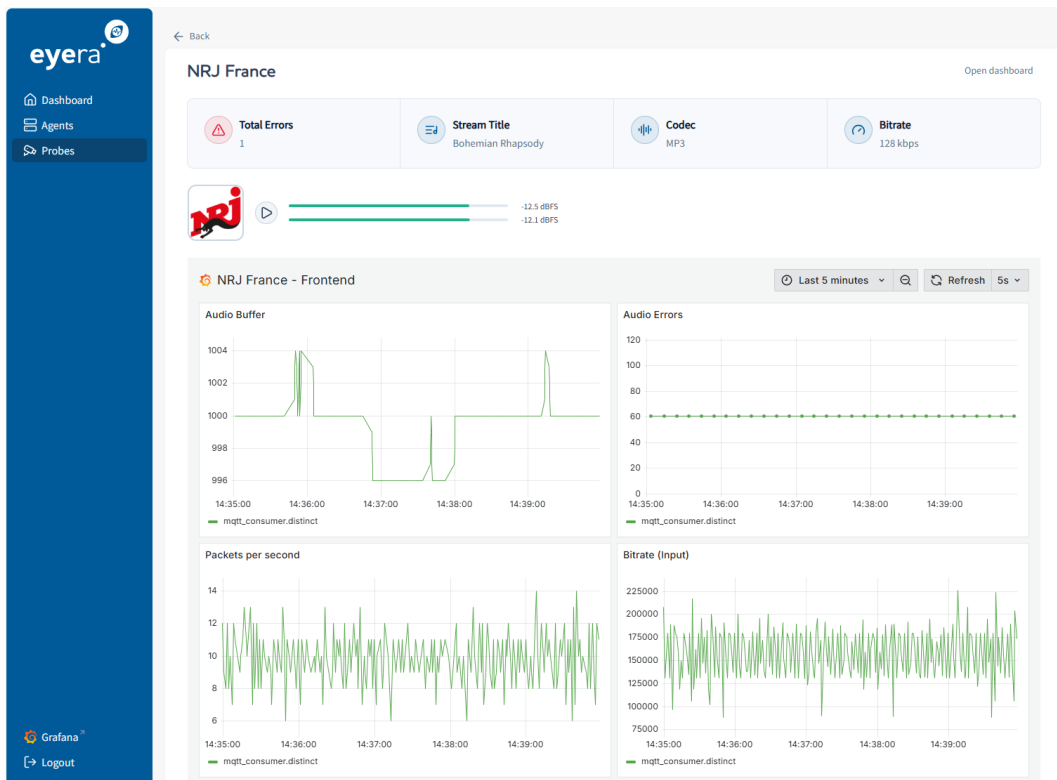
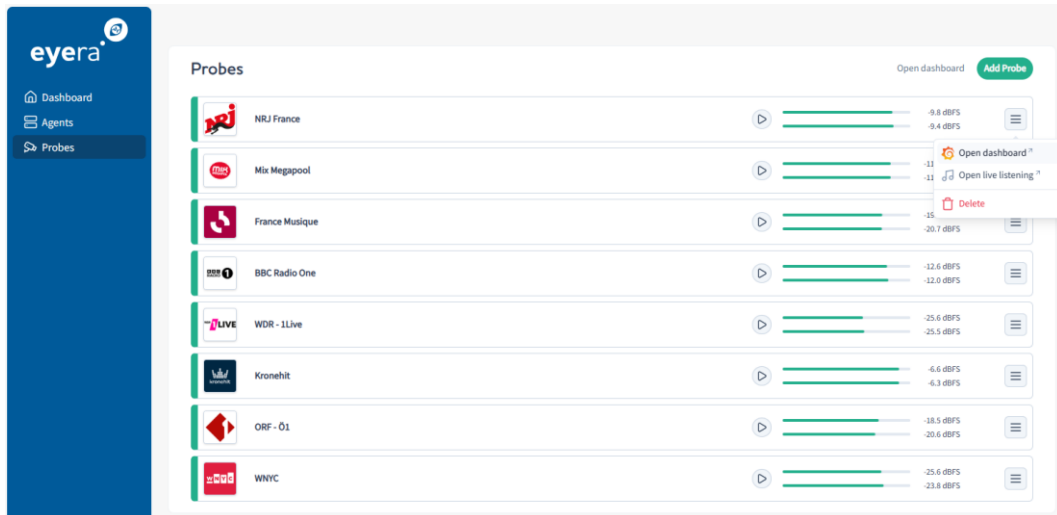
### Broadcasters and radio studios

Broadcasters can use eyera to monitor all their programs 24/7. The customizable monitoring dashboard provides real-time visualization of all activities. eyera supports various input sources, for example FM/MPX or DAB+ and monitors audio levels, loudness measurements, codec parameters and logs all events and alarms. External data sources can be connected to eyera to ensure monitoring of the whole present infrastructure at a radio studio.

### Broadcast network operators

Operators of DAB or FM networks can use eyera to monitor feeds received from radio studios and program providers. eyera ensures compliance of external providers, detects malfunctions and documents signaling problems as well as logging all events and alarms. The customizable dashboard provides an overview of all activities and can display a history of all occurrences.

# Audio Monitoring Platform





## Additional Features

With additional monitoring channels for external decoders, separate audio outputs, custom dashboards and several optional packages, eyera offers a wide variety of additional features.

### Monitoring channel for external decoder

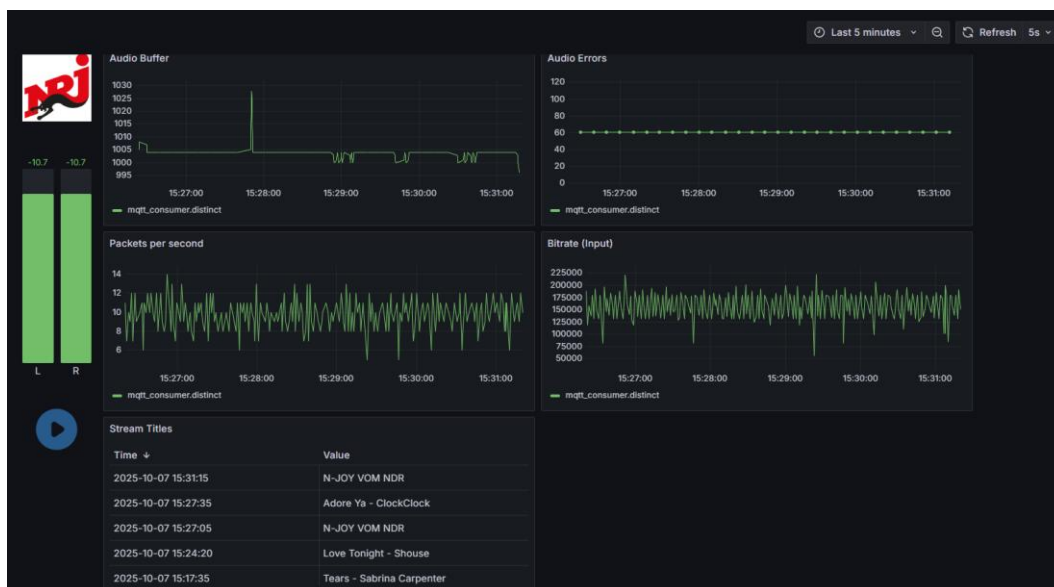
Additionally to the monitoring channels for included decoders, external 2wcom decoders like MoIN or decoders from the IP/SAT/MPX/RF families can also be integrated for monitoring via eyera. With this option, eyera can monitor input received from external decoders remotely.

### Audio output

Additional audio output to decode audio to AES67 for external audio monitoring.

### Custom dashboard

A customer-specific monitoring dashboard can be designed and developed by the 2wcom Systems GmbH team.





## FM/MPX package

The FM/MPX package enables receiving and decoding of MPX (PCM) and  $\mu$ MPX signals and includes the following features:

- FM stereo decoder to audio L+R
- Monitoring MPX levels (T1, T2)
- Monitoring presence of 19 kHz carrier
- MPX spectrum analyzer
- RDS decoder
- RDS alarms and event log
- Displaying and storing RDS data

## EDI/DAB+ package

The EDI/DAB+ package enables receiving and decoding of DAB and DAB+ signals from EDI streams and includes the following features:

- Receiving input from DAB multiplexer or EDI (ETI) or EDI (STI-D) encoders
- Decoding DAB+
- Decoding Dynamic Labels (plus), Slideshow and SPI Logos
- Displaying and storing DAB service information
- Logging of multiplex configuration changes
- Extracting and displaying ensemble structure service lists and subchannel parameters
- Monitoring EDI streams
- Displaying PAD status
- FhG MuxEnc (on request)
- Displaying DAB EWS/ASA information (on request)

## MPEG-TS package

The MPEG-TS package enables receiving and decoding of MPEG-TS streams and includes the following features:

- TS demultiplexing for further monitoring of contained audio
- TS demultiplexing for processing MPX or EDI in connection with the FM/MPX or EDI/DAB+ packages
- Monitoring MPEG-TS structure and content
- Indicating and logging of changes in service tables



## Enhanced Audio Monitoring package

The Enhanced Audio Monitoring package enables professional audio monitoring and includes the following features:

- Clipping detection
- Loudness measurements according to EBU R128 and ITU-R BS.1770/BS.1771: momentary/short-term/integrated loudness, loudness range (LRA) and True Peak (dBTP)
- Configurable metering scales

## Recording package

The Recording package enables the recording of audio output and includes the following features:

- Recording of audio output
- Internal and external storage solutions
- Playback via web GUI
- Download of recorded audio
- Recording in original format, for example EDI (on request)



## Upgrades

Article No.	Name	Description
VER	Monitoring decoder channel	Activation of channel for audio decoding and monitoring. Price per channel.
VER	Monitoring channel for external decoder	Activation of channel for audio decoding and monitoring of an external 2wcom decoder. Price per channel.
VER	Audio output	Integration of additional output for decoded audio via AES67 (requires the option Monitoring decoder channel). Price per channel.
VER	Custom dashboard	Design and development of a customer-specific monitoring dashboard. Price per development day.

## Packages

Article No.	Name	Description
VER	FM/MPX package	FM/MPX Monitoring <ul style="list-style-type: none"><li>• Receive and decode MPX (PCM) and µMPX</li><li>• Monitor MPX levels and RDS data</li></ul> Price per instance.
VER	EDI/DAB+ package	DAB Monitoring <ul style="list-style-type: none"><li>• Decode DAB+ from EDI streams</li><li>• Decode Dynamic Labels, Slideshow and SPI logos</li><li>• Monitor EDI streams</li></ul> Price per instance.
VER	MPEG-TS package	MPEG-TS Monitoring <ul style="list-style-type: none"><li>• TS demultiplexing of contained audio</li><li>• Monitor MPEG-TS structure and content</li></ul> Price per instance.





Article No.	Name	Description
VER	Enhanced Audio Monitoring package	<p>Professional audio monitoring</p> <ul style="list-style-type: none"><li>• Clipping detection</li><li>• Loudness measurement according to EBU R128 and ITU-R BS.1770/BS.1771 including Loudness range (LRA) and True Peak (dBTP)</li></ul> <p>Price per instance.</p>
VER	Recording package	<p>Audio recording</p> <ul style="list-style-type: none"><li>• Playback via web GUI</li><li>• Internal and external storage solutions</li><li>• Download of recorded audio</li></ul> <p>Price per instance.</p>