Smart pi ECOsystem



Smart Public Information for the smart city.

Smart pi takes information from across the city and delivers it to the people who need it: as an announcement, on a display, through a help point or straight to a hearing aid, the moment it matters.

One ecosystem, designed to look, feel and work as one

Every product works on its own, and better together.

IN

Where information comes from

RTA · MIC · PBX · SPL · Fire panel

SMART PI CORE

Decides what to say, where and when

DVA · DVA-GTFS · EYE · DSP · SIP · FSM · LOG · NMS

OUT

How it reaches people: hear, see, ask

NAM · NAM-HP · EDC · EYE-HD · HLP

Smart pi LOG

Audio recording

Find the announcement, hear the recording and keep the context across every node.

Find what was said. Keep the context.

Audio recording, playback and search across a growing network of recording nodes.

Smart pi LOG records networked audio channels and brings their archives into one searchable web interface. Find an announcement, listen to the recording and review the transcript where transcription is enabled.

Start with one server, then add recording nodes as the channel count grows. Search a single node or across the system without turning each recorder into a separate investigation.

Announcements

Review the message sent to a passenger area.

Live paging

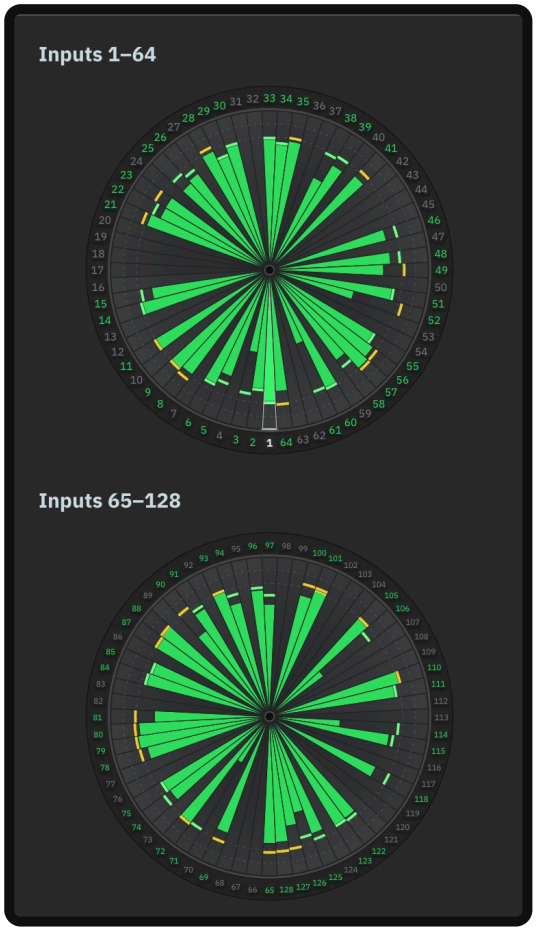
Retain audio from the configured paging source.

Help points

Find recorded exchanges on configured channels.

Operational review

Keep audio, timing and transcript together.



Many inputs, one overview
Recording and idle states in the UI preview.

2–512

Channels per server, subject to sound card and licence.

Nodes

Expand the recording system across servers.

Audio

Full linear recording quality available.

Text

Optional speech-to-text metadata.

SmartPi UI preview with scripted sample announcements and synthetic recording activity. Overview shows 128 illustrative inputs, not a server capacity limit.

Several recorders. One place to investigate.

Scale the recording system while keeping the review workflow consistent.

Audio
Configured sources
→
Nodes
Record channels
→
Archive
Audio and metadata
→
Explorer
Search across nodes
→
Review
Listen and download

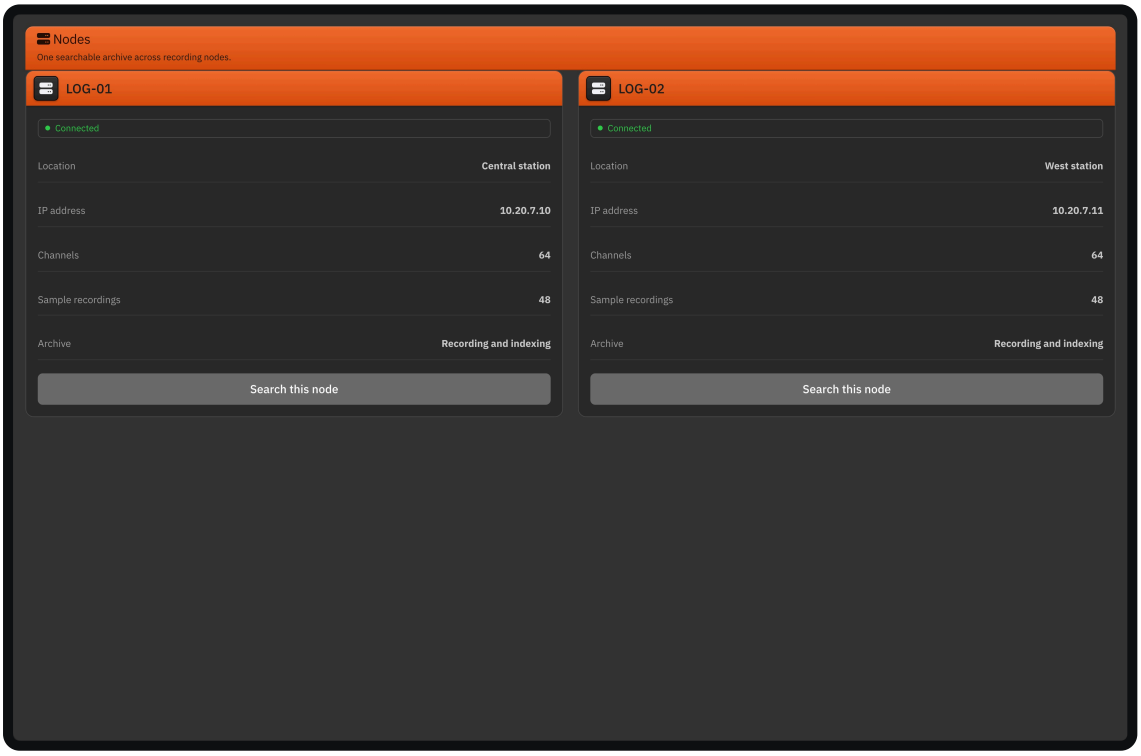
- One server supports 2–512 channels depending on its sound card and licence. Add nodes for larger systems.

Record where the channels are

Deploy the recording engine around the audio sources and sound-card interfaces. Name each node and channel so the archive stays understandable.

Search the system as a whole

Use the node filter when the source is known, or search across nodes when the question begins with the announcement itself.



Recording nodes
Two fictional nodes in a shared archive.

SmartPi UI preview with scripted sample announcements and synthetic recording activity.

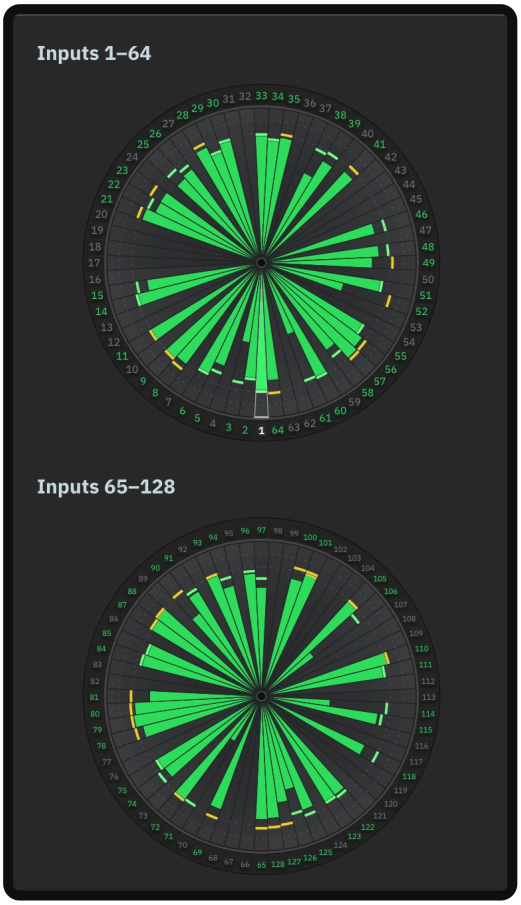
See the active inputs. Find the channel behind them.

Compact rows and radial meters make a large recording system easier to scan.



A compact channel bank

One of four 32-input banks in the preview.



Recording overview

Two 64-channel radial meters; selection links to the input detail.

Recording and idle are different

REC shows an active recording; IDLE shows a channel waiting for activity. OFF and disabled states remain distinct from quiet input.

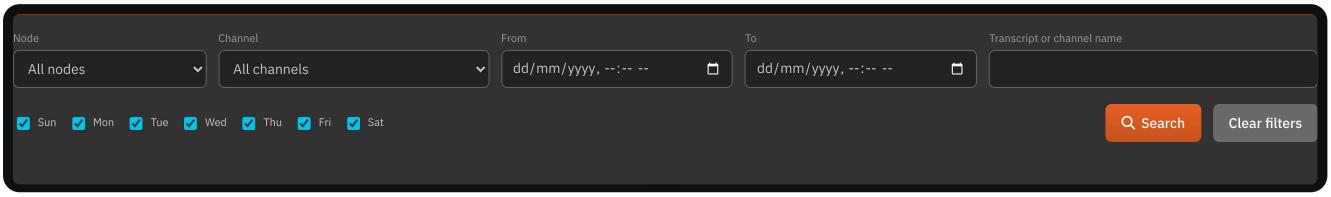
Select the channel behind the meter

Use the linked input view to identify the node, channel and recording condition, then move to its settings or archive.

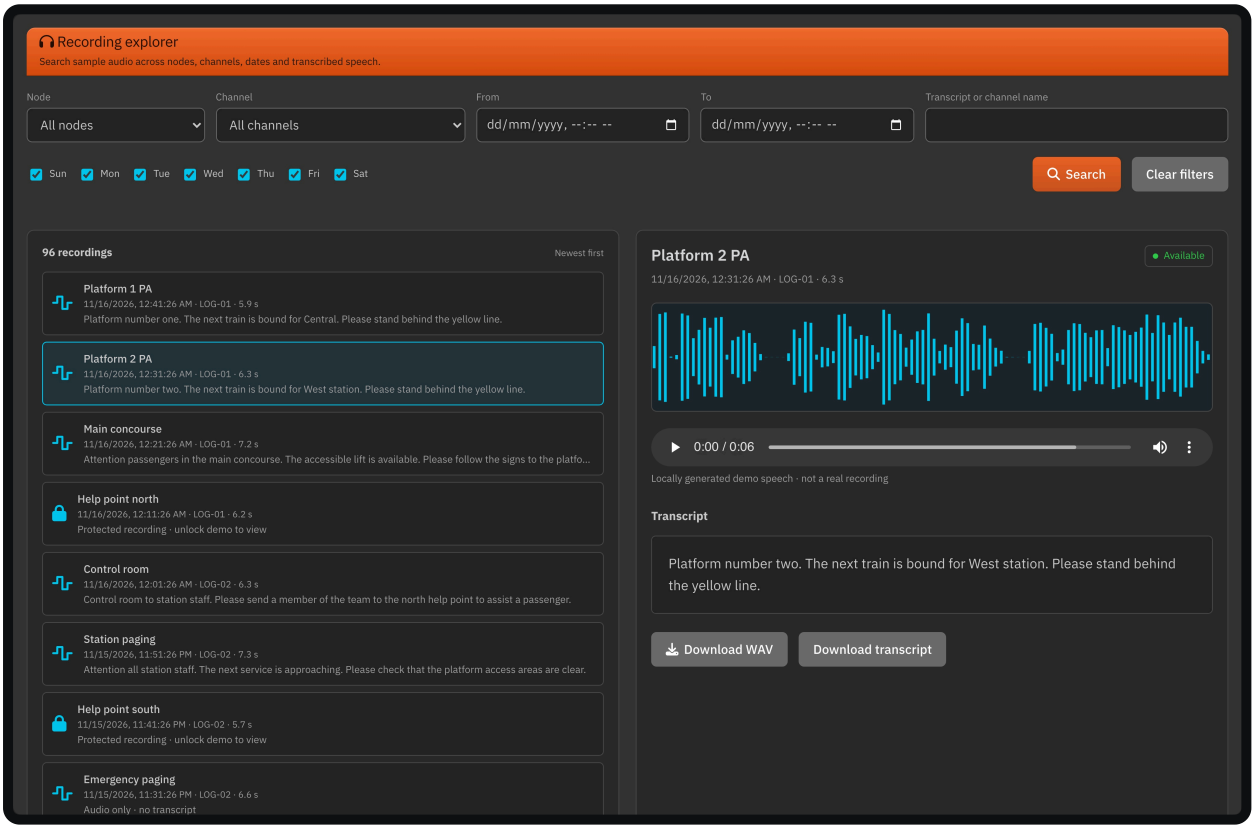
SmartPi UI preview with scripted sample announcements and synthetic recording activity. The 128-channel layout and recording states are shown in the SmartPi UI preview.

A place, a time or a remembered phrase

Search the archive from the detail you already have.



Narrow the archive
Combine node, channel, dates, days of the week and text.



A result with its context
Channel name, node, time, waveform and transcript in the recording explorer.

Start with what is known

A location, time range or phrase can narrow the search. Use the channel and node filters to separate similar announcements.

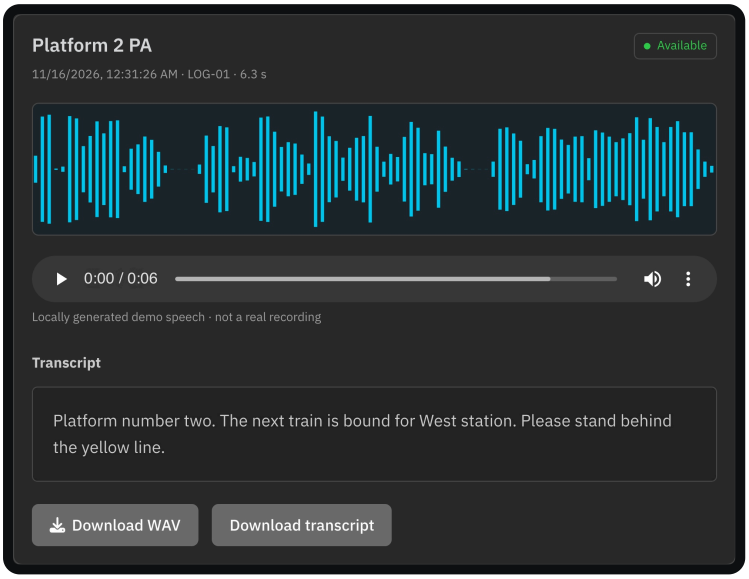
Keep the result identifiable

Check the selected channel name, timestamp and node before playing or downloading the result.

SmartPi UI preview with scripted sample announcements and synthetic recording activity. Transcripts are available when transcription has been enabled.

The audio.
The words. The timing.

Keep the evidence for a selected result together while reviewing the message.



Listen with the transcript beside it
Platform 2 audio, channel name and text follow the same sample announcement.

Read the selected result

The waveform, recording duration and transcript sit with the channel identity and timestamp.

Hear the actual recording

Use playback to check wording, timing and the recorded audio rather than relying on a text match alone.

Take the result into the review

Download the available recording and transcript for the authorised review workflow.

Audio and text answer different questions

A transcript helps find the announcement. Playback lets the reviewer hear what was recorded on the selected channel.

SmartPi UI preview with scripted sample announcements and synthetic recording activity. Sample speech is locally synthesised, not a real conversation or field recording.

Make speech searchable. Keep the recording close.

Add text metadata so an investigation can begin with remembered words.

Recording
Captured audio
→
Transcription
Configured provider
→
Text
Stored metadata
→
Search
Words and phrases
→
Playback
Check the recording

- Speech-to-text is optional. A recording can remain audio-only when transcription is not enabled.

Cloud or on-premises choices

Published integration options include Google AI and Voice Interaction. Voice Interaction can run on premises; custom models are supported.

Keep audio as the reference

Speech recognition can help locate a recording. Listen to the selected result when names, wording or timing matter.

Configure transcription around the channel

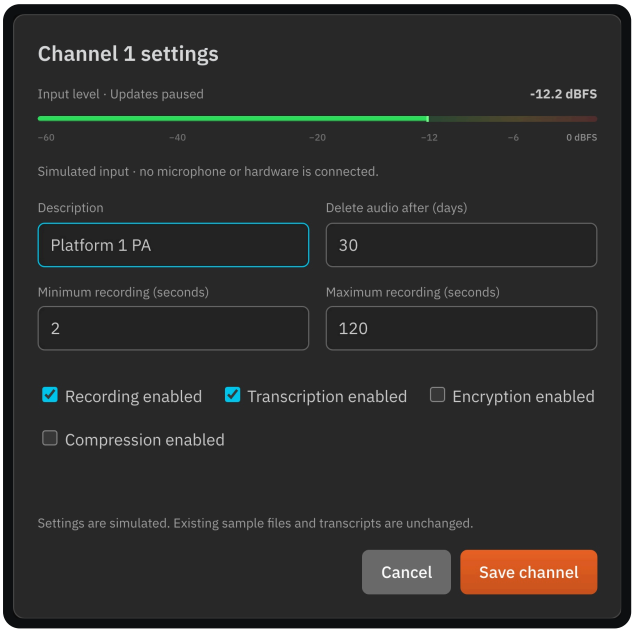
Select the channels that need text metadata. Consider the language, vocabulary and expected audio conditions when setting up the transcription workflow.

Check a representative announcement

Use a sample containing local names and the phrases operators are likely to search for. Compare the transcript and audio before adopting the configuration.

A recording policy for each source

Choose the capture and retention behaviour around what the channel carries.



Per-channel recording settings
Capture length, retention, transcription, encryption and compression.

Define when to record

Set the channel's enabled state and the recording-length limits around the intended source.

Choose how long to retain it

Set the channel's delete-after period as part of the archive workflow. Capacity depends on the retained audio and available storage.

Select the metadata and file options

Transcription, encryption and compression can be configured per channel. Keep these settings aligned with the review and access requirements.

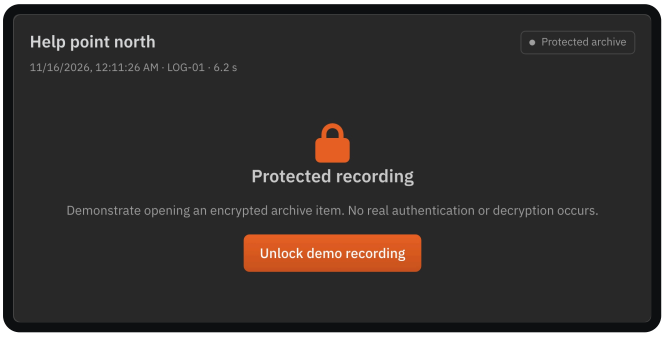
Name the channel once, use it throughout

A useful description ties the recording source to the result list, selected recording and retained configuration. Keep it aligned when equipment or locations change.

SmartPi UI preview with scripted sample announcements and synthetic recording activity. Settings in the preview are browser-local; existing sample recordings are unchanged.

A useful archive. Controlled access.

Bring authentication and recording options into the same deployment plan.



A protected recording
The preview illustrates a restricted recording before it is opened.

Control access to the archive

Active Directory / LDAP sign-in integrates the web interface with the organisation's access model.

Choose optional file encryption

Enable encryption where the recording workflow needs it. Configure the required access and key handling with the deployment.

Use HTTPS

The published deployment supports HTTPS with your own certificates for browser access.

Agree who reviews and exports

Define the people who can search, listen and download recordings, and how exported files are handled.

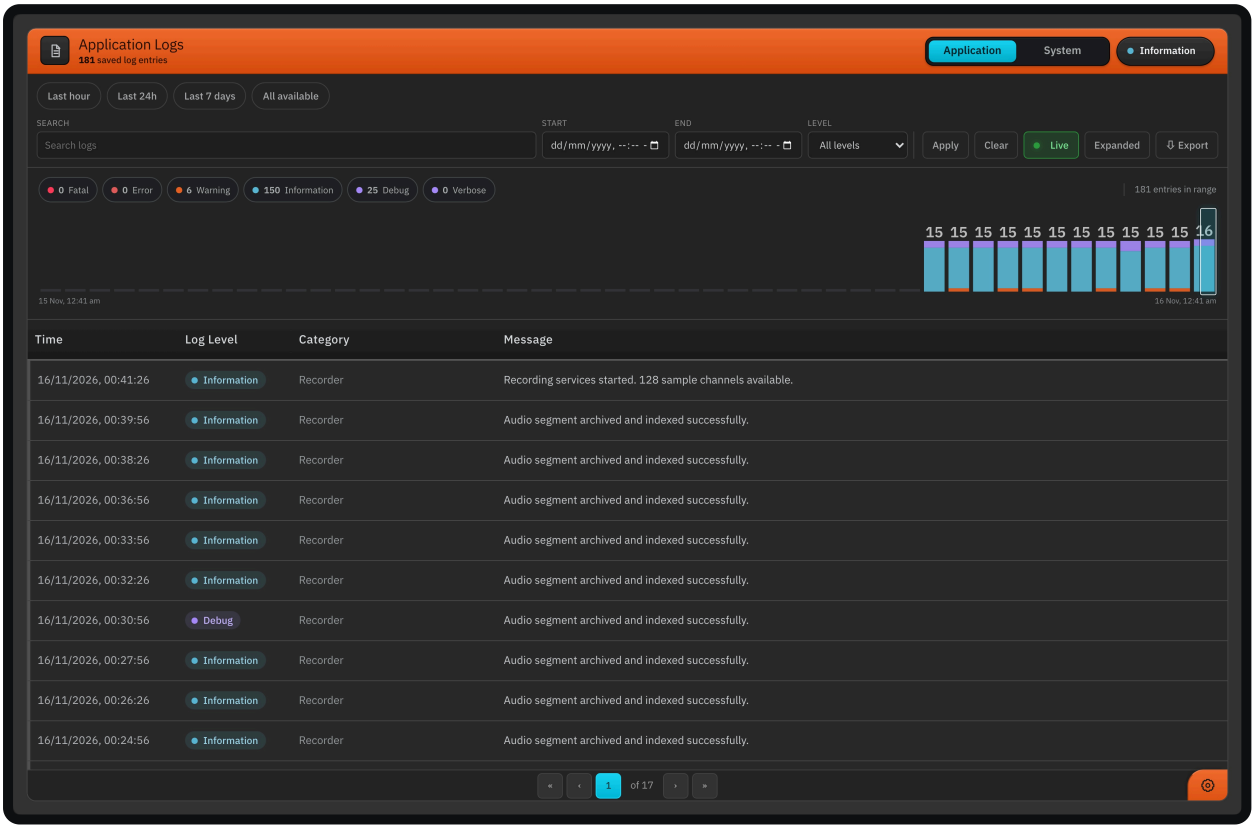
Keep the archive policy consistent

Review retention, transcription and encryption together when channels are added or their purpose changes.

SmartPi UI preview with scripted sample announcements and synthetic recording activity. Protected-recording controls illustrate a workflow; the simulator does not authenticate or decrypt files.

What was retained?
What was happening around it?

Review the recording archive alongside the system's operational history.



Application and system events
Filter event types, inspect a period and export the selected history.

Operational status

Use recording state and node availability to understand the current condition of the recording system.

Events over time

Use the event timeline and details to review activity around the period being investigated.

Keep recording search and event search distinct

The archive answers which audio was retained. Operational logs help explain what the recording system was doing. Bring both into a support review when the question concerns missing or unexpected results.

SmartPi UI preview with scripted sample announcements and synthetic recording activity. Event timelines and filters are shown in the SmartPi UI preview.

Start with the channels. Plan for the archive.

Build recording, access and review around the installation's actual workload.

1. **Map the audio sources**
   Choose the recording channels, sound-card interfaces and node placement.

2. **Set the channel policies**
   Name sources and agree enabled state, recording lengths, retention and optional file settings.

3. **Configure access and text**
   Set up browser security, identity integration and any transcription provider.

4. **Prove the review workflow**
   Capture a representative message, find it across the archive and verify audio, timestamp and transcript.

5. **Plan capacity and maintenance**
   Size storage and server resources for the selected channel count, audio format, retention and processing workload.

Windows / Linux

Virtualised or bare-metal deployments.

Service operation

Windows service or Linux systemd service.

Audio interfaces

ALSA on Linux; ASIO or WDM on Windows.

Works with the audio system

Smart pi DVA
Automatic announcements.

Smart pi MIC
Live paging sources.

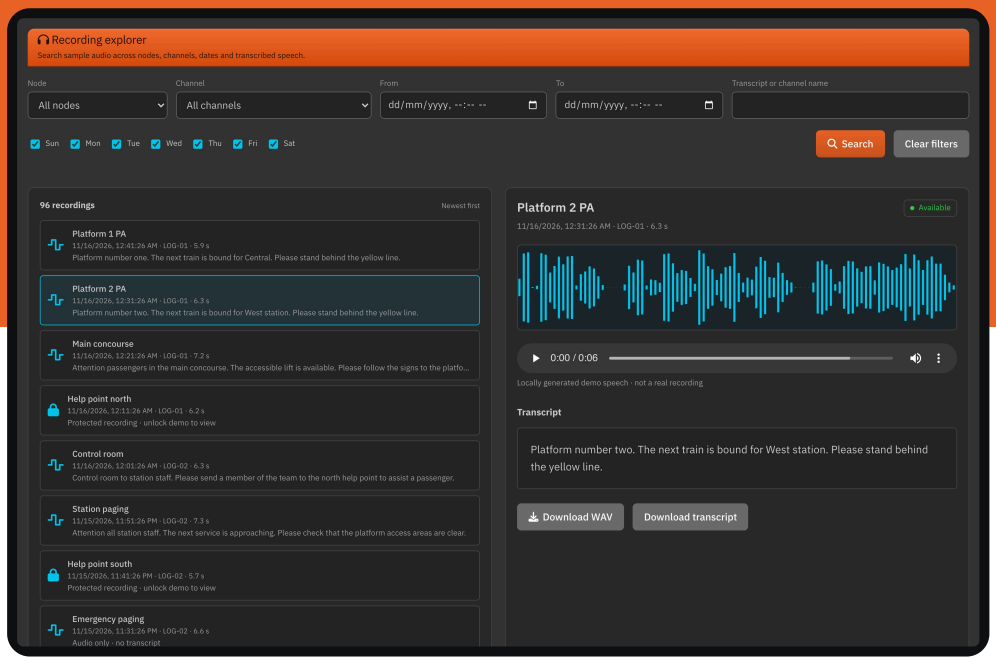
Smart pi PBX
Configured call audio.

Smart pi DSP
Routed audio channels.

SMART PI LOG

Find the message. Hear the detail.

Talk to our team about your audio sources, recording channels and archive workflow.



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Smart pi ECOsystem

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Interface preview with scripted sample audio. Specifications may change without notice.