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 FSM

## Fire safety management

Supervise network amplifiers, surface faults and coordinate the fire-system interface.

# A clear view of the monitored system

Amplifier supervision and fire-system integration for the Smart pi ECOsystem.

Smart pi FSM supervises Smart pi NAMs and their selected amplifier channels. Operators can see a zone's condition, identify the device involved and review the events around a fault.

The rack unit combines a front panel with a built-in browser interface. It provides local indication and controls without requiring an additional computer to host the management interface.



**Smart pi FSM**
Front-panel indication and controls in a rack-mounted unit.

### Zone supervision

Bring the monitored amplifiers into one status view.

### Fault location

Follow a condition down to its device and channel.

### External inputs

Map GPI states to configured EYE modes.

### Operational review

Filter events and inspect their timing.

**1 zone**
EN 54-16 monitoring mode.

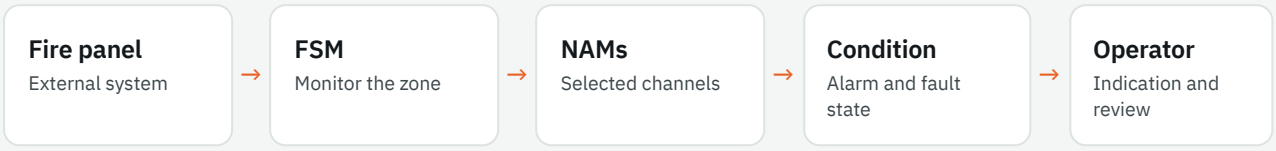
**16 GPI**
External input mappings.

**AES70**
Control and integration interface.

**Web**
Embedded configuration and status.

# Define the zone. Supervise the endpoints.

Keep the external system, monitored amplifiers and operator indication connected by a clear configuration.




- Illustrative supervision workflow. Interface signals and system behaviour are configured for the installation.

### A defined monitoring scope

EN 54-16 mode monitors a single evacuation zone containing multiple Smart pi NAMs. Select the devices and amplifier channels that form that zone.

### Other monitoring arrangements

Additional modes support larger monitoring systems where EN 54-16 operation is not required. Select the mode around the system design.

## Make the monitored boundary explicit

- Keep the device list aligned with the installed amplifier network.
- Include the intended NAM channels and identify any disabled devices.
- Define the external input mapping and any EYE actions.
- Test the resulting indication and operational record end to end.

## Works with

**Smart pi NAM**
Network amplifier endpoints.

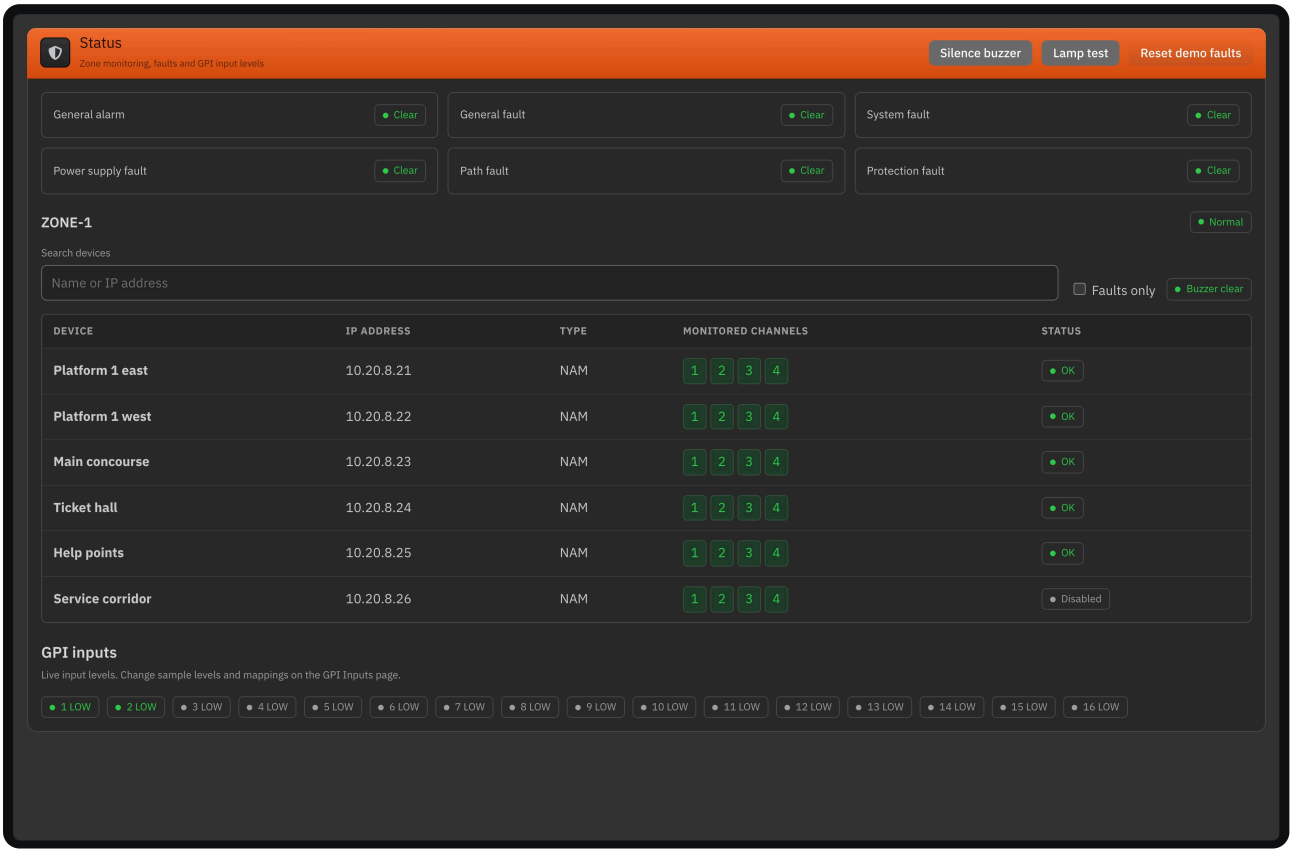
**Smart pi NAM-HP**
High-power amplifier endpoints.

**Smart pi DSP**
Audio routing and processing.

**Smart pi EYE**
Configured visual information modes.

# See the condition. Find the endpoint.

A zone summary and device list bring the monitoring result into one view.




**Zone status at a glance**
General conditions, monitored devices and per-channel state.

### Start with the overall condition

Review alarm, fault, path, power and other displayed status indicators, then identify which device or channel needs attention.

### Separate a fault from a disabled endpoint

A deliberately disabled device remains visible in configuration. Its status needs to be understood as part of the monitored scope.

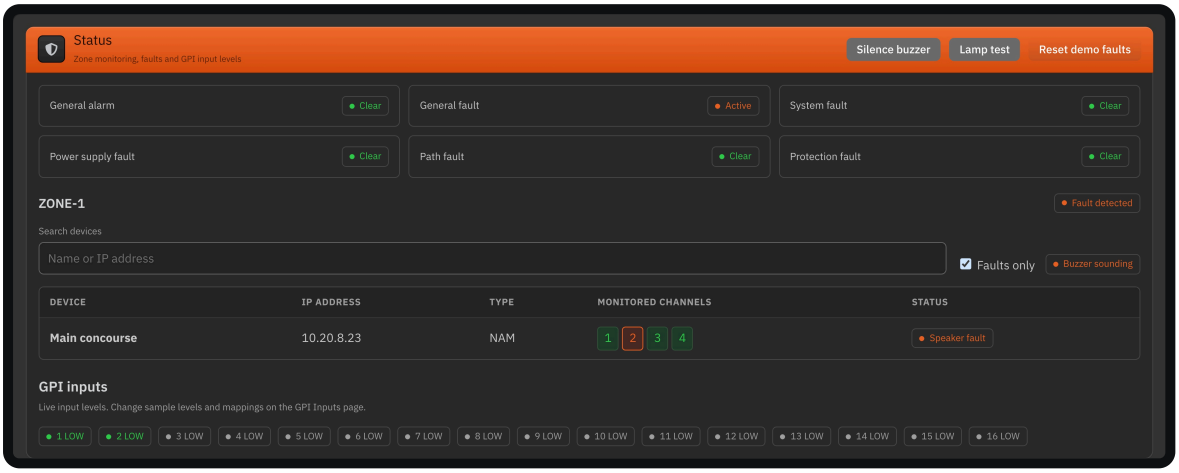
## Name devices for the person investigating

Use clear installation names alongside IP addresses. A useful label helps connect the status entry with the amplifier and the listening area it serves.

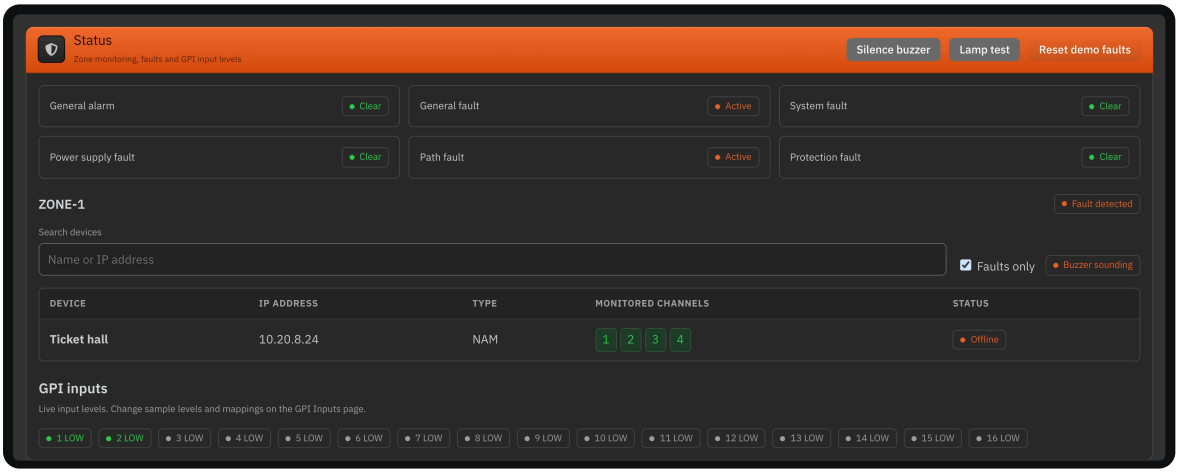
SmartPi UI preview with fictional devices and simulated conditions.

# Different faults.
# Different investigations.

Identify what changed before deciding where to investigate.




**Speaker monitoring fault**
Fault-only view: the affected NAM and channel.




**Monitored device offline**
Fault-only view: the endpoint that stopped responding.

### Follow the channel

Identify the NAM and amplifier channel before investigating the connected speaker circuit.

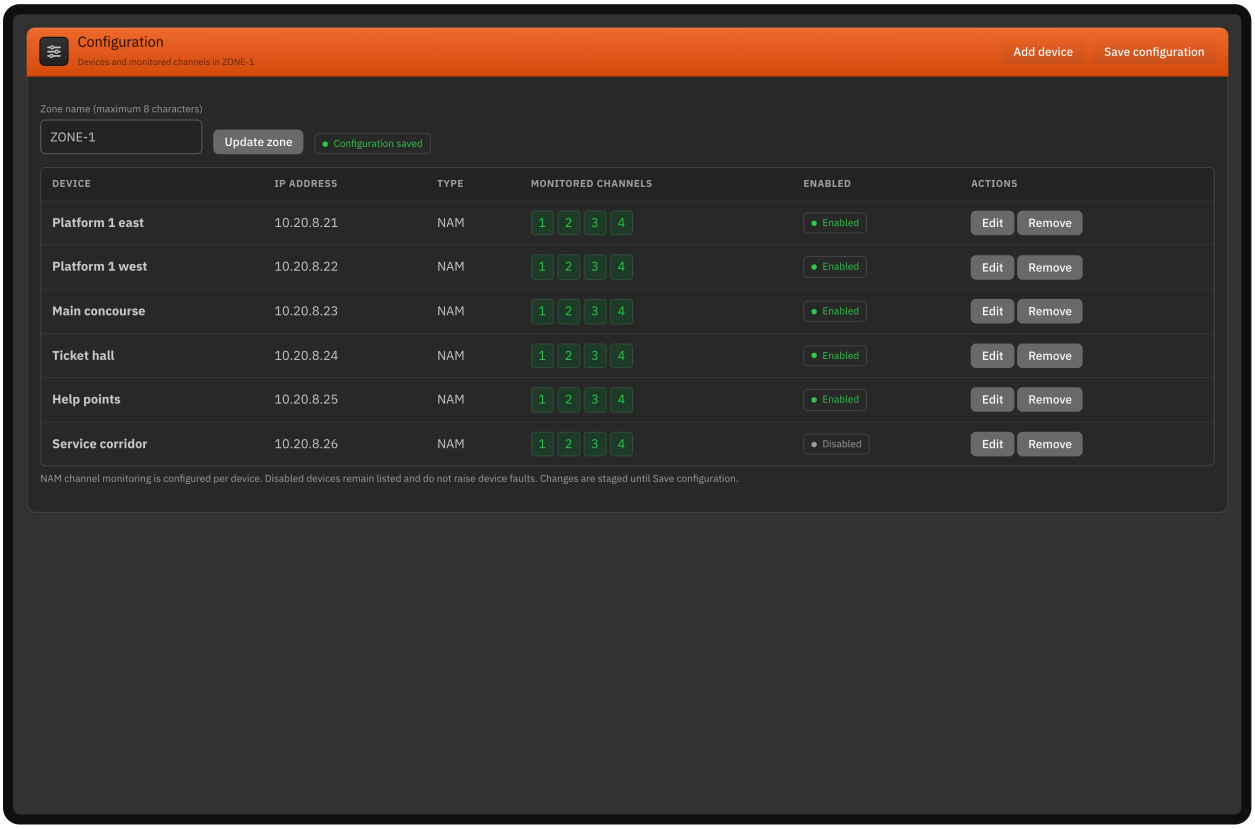
### Follow the path

Check device availability and communication when an endpoint is offline.

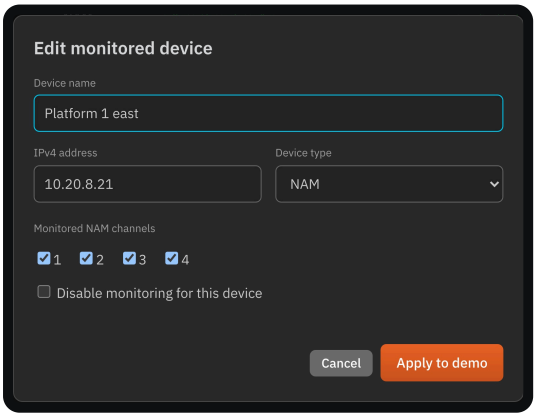
SmartPi UI preview with fictional devices and simulated conditions. Scenarios illustrate indication; they do not simulate a physical evacuation system.

# Monitor the channels that belong in the system

Make the device list a useful description of the installed monitoring scope.




**The monitored device list**
Device names, addresses, enabled state and selected NAM channels.




**Configure an endpoint**
Choose the channels included in monitoring.

## Choose the actual channels

Configure the NAM channels that belong in the monitored system. Keep that selection aligned with the installed wiring and zone definition.

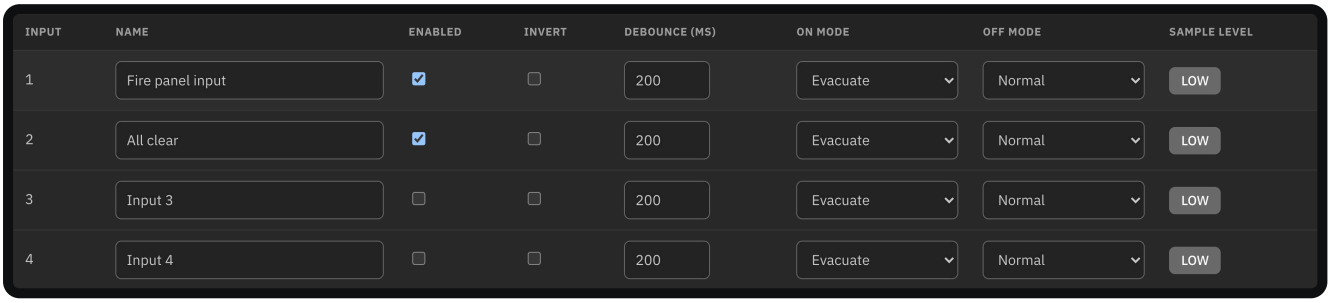
## Retain a clear device identity

Use the correct IP address and an unambiguous name. Review the enabled state whenever an endpoint is added, replaced or temporarily excluded.

SmartPi UI preview with fictional devices and simulated conditions.

# Turn an input change into the configured visual mode

Coordinate the external signal with the information shown on EYE displays.



| INPUT | NAME | ENABLED | INVERT | DEBOUNCE (MS) | ON MODE | OFF MODE | SAMPLE LEVEL |
|---|---|---|---|---|---|---|---|
| 1 | Fire panel input | ☑ | ☐ | 200 | Evacuate | Normal | LOW |
| 2 | All clear | ☑ | ☐ | 200 | Evacuate | Normal | LOW |
| 3 | Input 3 | ☐ | ☐ | 200 | Evacuate | Normal | LOW |
| 4 | Input 4 | ☐ | ☐ | 200 | Evacuate | Normal | LOW |

**External input mappings**
Four of the 16 input mappings, showing modes, inversion and debounce.

### An action for each state

Map HIGH and LOW input states to the configured EYE modes. An input can have a name, an enabled state and optional inversion.

### Debounce the transition

Set the input debounce period within the native 20–5000 ms range. Choose it around the connected signal and intended response.

**Input** External signal → **Mapping** Enabled and inverted → **Debounce** Configured interval → **EYE mode** HIGH / LOW action → **Display** Configured content

Illustrative input-to-display path. The selected EYE modes and their display content are configured separately.

### Test both edges

Verify the active state and the return to normal. Confirm input polarity, debounce and the displayed outcome with the connected equipment.

SmartPi UI preview with fictional devices and simulated conditions. Preview table shows inputs 1–4; the product has 16 mappings.

# An immediate indication. A path to the detail.

The rack unit keeps monitoring visible even when the browser is closed.




**Front-panel indication and controls**
Power, alarm and fault indication beside the Silence, Test and Reset controls.

### Silence

Acknowledge the audible indication. Check the displayed system condition separately.

### Test

Check the indication functions as part of the agreed operator test procedure.

### Reset

Use the reset control as part of the configured operating procedure and verify the resulting state.

### See more than a general fault

The front panel brings power, alarm, general fault, system fault, supply, protection and path indications together. Use the browser view for the endpoint detail.

### Keep access practical

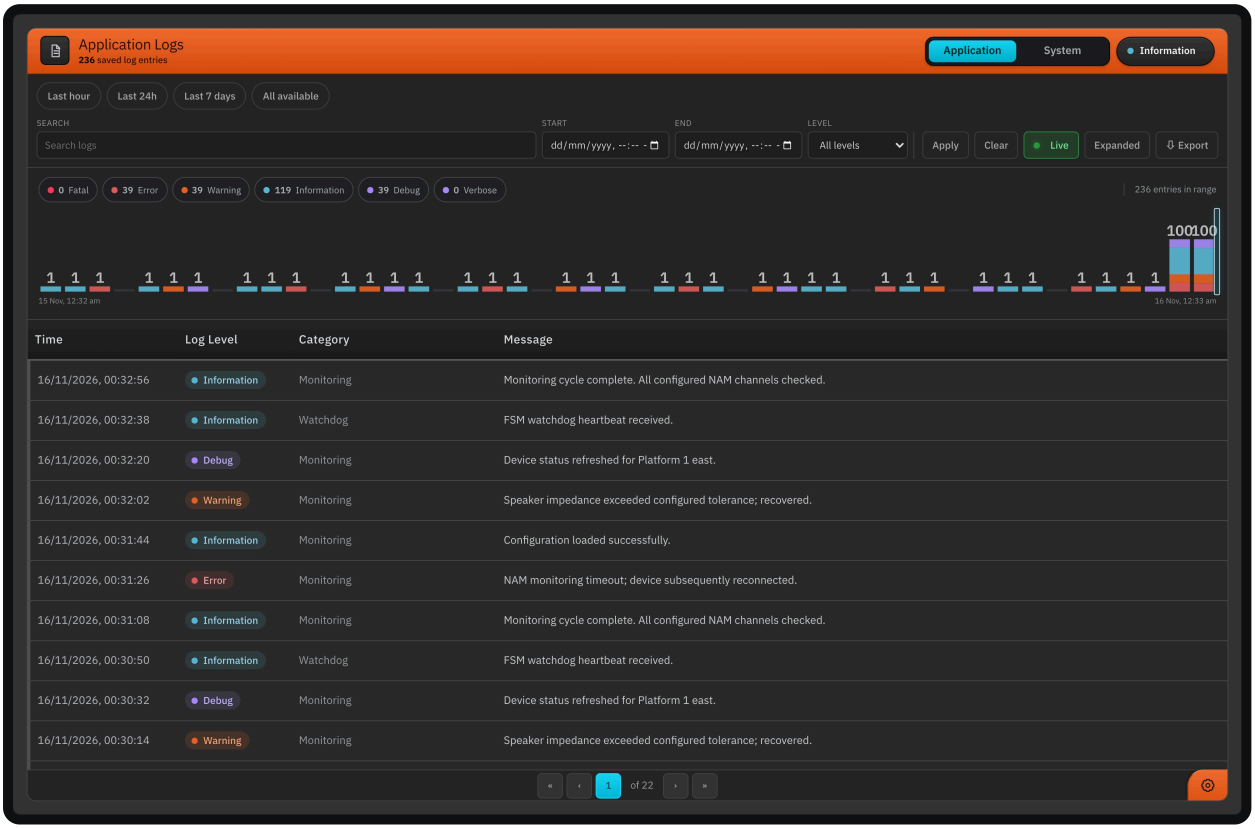
Front-to-back cooling supports rack installation. Leave the panel accessible for inspection and the configured operator controls.

### Local indication and browser detail

The physical panel provides a local reference. The web interface helps identify the configured devices, channels and events behind the monitoring condition.

# When did it change? What happened next?

Use event timing to turn a current fault into a traceable investigation.




**Events over time**
Severity timelines and filtered entries help locate changes and recovery.

### Find the useful interval

Filter the event list by time, severity or text. Use the timeline to focus on a period with relevant activity.

### Keep the evidence

Export the selected event data for review alongside device identities, configuration and the work record.

## Read the sequence, not just the total

A fault count shows activity. The event details explain which monitored endpoint changed, when it was detected and what followed. Compare that sequence with the current status before closing the investigation.

SmartPi UI preview with fictional devices and simulated conditions. Timeline, filtering and export are shown in the SmartPi UI preview.

# A managed endpoint. A defined operating scope.

Keep access, monitoring configuration and maintenance aligned with the installed system.

### Built-in management

Configure and inspect the system through the embedded web interface. An additional computer is not required to host it.

### Controlled access

LDAP / Active Directory integration supports the access model used by the installation. Agree operator and administrator responsibilities.

### Watchdog protection

Built-in watchdog protection supports supervision of the FSM's own operation. Include local system-fault indication in the acceptance checks.

### Control and integration

OCA / AES70 provides the published control and integration interface. Define the connected systems and expected behaviour.

### Maintain a known configuration

Keep the monitored device list, channel selections, operating mode and GPI/EYE mappings with the installation record. The published management features include online updates with rollback to the previous software version.

### Choose the monitoring mode deliberately

FSM is built for EN 54-16 applications with a single monitored evacuation zone. Other monitoring modes are available for larger systems where that operation is not required. Select and validate the complete installation against its project requirements.

# A monitored system. A repeatable acceptance test.

Prove the configured installation and leave a clear record for the next operator.

1. **Define the scope**
   Agree the operating mode, monitored zone, external interfaces and required indication.

2. **Map the endpoints**
   Name the NAMs, assign their addresses and select the amplifier channels included in monitoring.

3. **Configure the actions**
   Set enabled states, input polarity, debounce and any EYE mode mapping.

4. **Prove the indications**
   Test representative endpoint, channel, communication and power conditions using the installation's agreed procedure.

5. **Hand over the record**
   Retain the accepted configuration, test results, event review process and operator instructions.

### Include recovery

Check what happens when the condition returns to normal, as well as when it first appears. Compare the local indication and browser status.

### Keep the system understandable

Record intentional exclusions, disabled endpoints and access responsibilities so later maintenance preserves the monitored scope.




**Smart pi FSM**
Supervision, indication and integration in the rack.

SMART PI FSM

# See the condition. Coordinate the response.

Talk to our team about your amplifier network, monitoring scope and fire-system interfaces.




Web
**www.smart-pi.info**

Email
**info@smart-pi.info**

Sales in Australia and New Zealand: Qvest
**+61 2 8011 0500**

Scan to visit smart-pi.info

Smart pi ECOsystem

Smart pi is a T&M Media Pty Ltd brand · ABN 67 612 111 369
Smart pi FSM · Fire Safety Manager. Specifications may change without notice.