AI CCTV monitoring

AI that watches every camera, on your own server.

Turns the CCTV you already have into checks for PPE, fire and smoke, restricted zones, people, vehicles and visitors, with a picture and a clip behind every alert. No cloud.

White-label: the licence sets the product name, logo and colours.



Live wall: every person carries a compliance tag.

Safety checks depend on who happens to be looking

Walk-arounds cover one area at a time.

A supervisor sees what is in front of them, for as long as they are there.

CCTV records and nobody watches.

No team can watch every camera through every shift.

Incidents are found after the fact.

A missing helmet or a person in a restricted area becomes a report, an injury or an audit finding, days later.

It watches every camera, every shift.

One server checks every camera and keeps the proof

Watches

Checks for missing PPE, fire and smoke, people in restricted zones, risky moves near forklifts, counts, plates and visitors.

Any RTSP camera or recorder works.

Proves

Opens an event with a picture and a video clip, and alerts the right people.

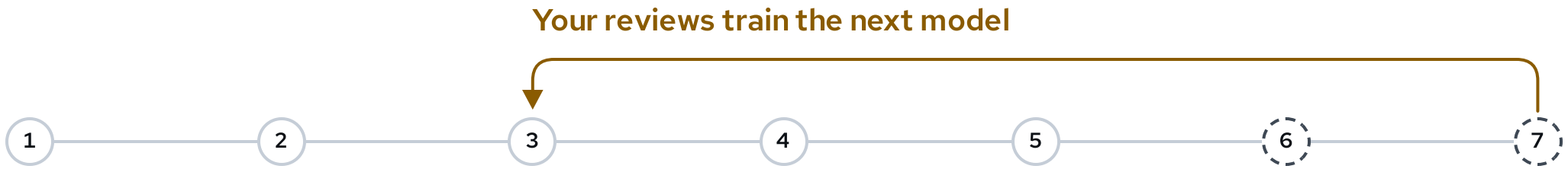
Reviewers mark each event a real violation or not a violation.

Learns

Trains on footage from your own site, reviewed by your own team.

A person activates every new model.

From camera to evidence to a better model



Cameras
Any RTSP camera or recorder.

Detect and track people
Finds each person and follows them from frame to frame.

Run checks per zone
PPE, safety, security and counting checks, switched on per camera and zone.

Warn, then confirm
A person turns amber first. An event opens only if the item stays missing for the rule's set time.

Event with evidence
Annotated and raw frames, plus a video clip.

Review
Your team marks each event a real violation or not a violation.

Site-trained model
Reviewed frames train a model on your site. You activate it.

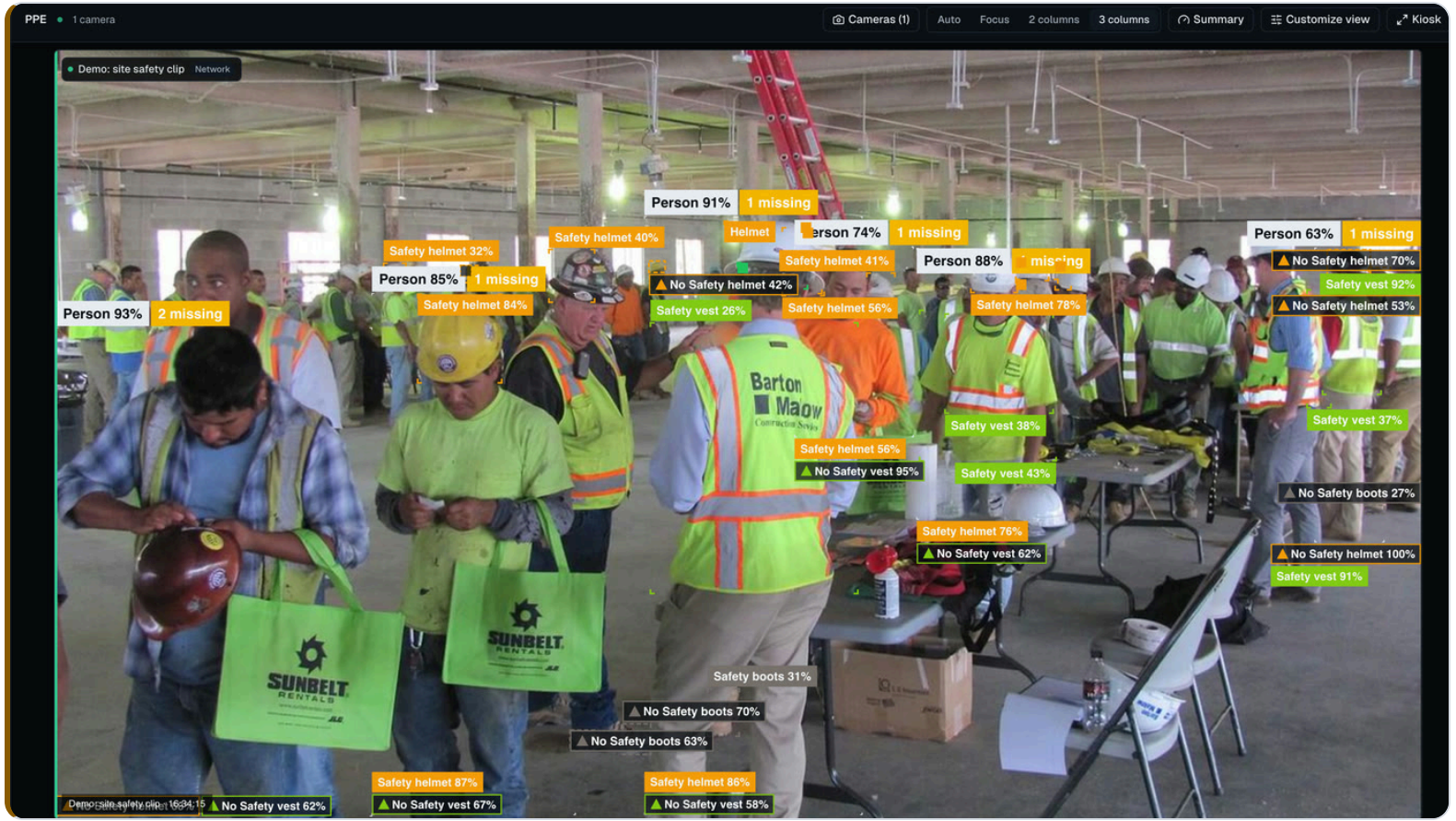
○ Runs on its own ◌ A person decides

Every camera on one wall, every person tagged

Compliance tags.
Each person carries one. Missing PPE shows in amber.

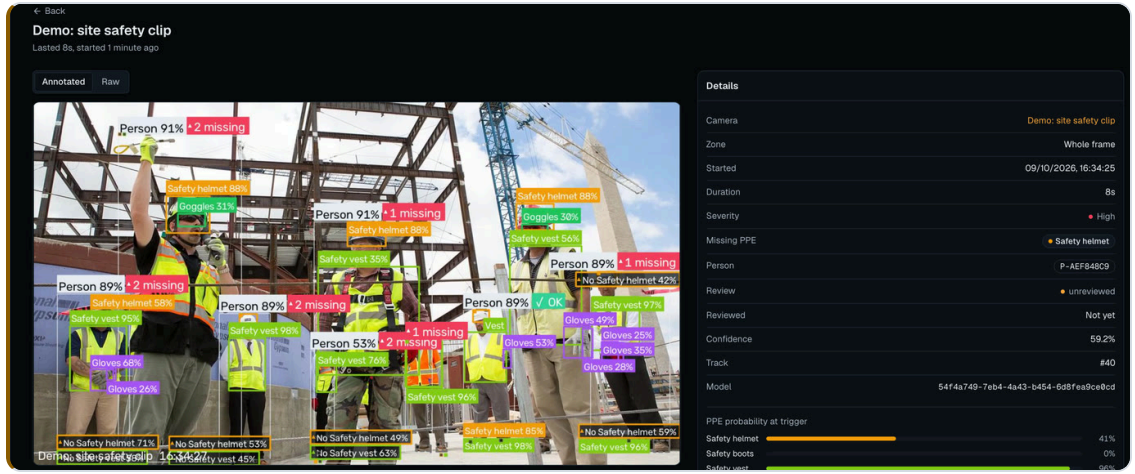
Built for a control room.
Auto, focus and column layouts, plus a kiosk mode for a wall display.

Live video, boxes on top.
One switch shows or hides the boxes.



Demo scene built from public-domain photos, on a ready-made model. Wide, crowded views like this one gain the most from training on your own footage.

Every violation arrives with its proof





Frames and a clip.

Annotated and raw snapshots, plus a video clip cut from the recording.

One page per event.

Missing PPE, severity, camera, zone and person id together.

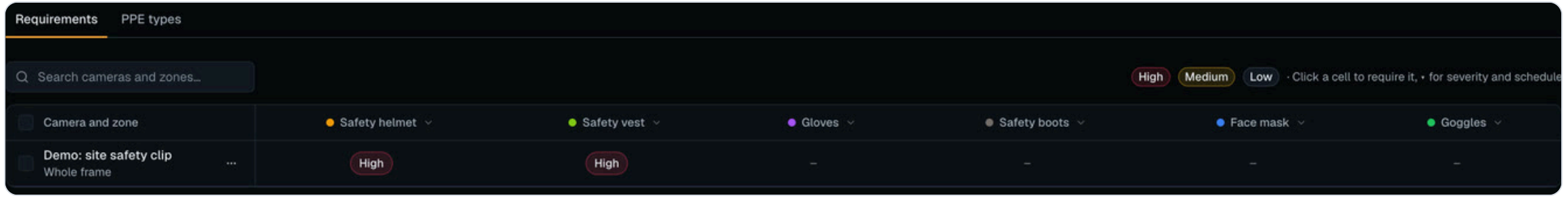
Review and notify.

Reviewers mark each event a real violation or not a violation. Confirmed violations become incidents, with an evidence pack to download. The bell shows high-severity events, incidents assigned to you and system alerts.

Nothing fires on a single frame.

Each rule sets a warning time, when a person turns amber, and a violation time, when the event opens. Each person raises one event per episode.

Rules per zone, with severity and a schedule



Zones

Draw zones on any camera. Each person is judged by the zone they stand in, after a short entry grace period.

Severity

Set it for each PPE type in each zone, with a warning time in amber before each violation.

High Medium Low

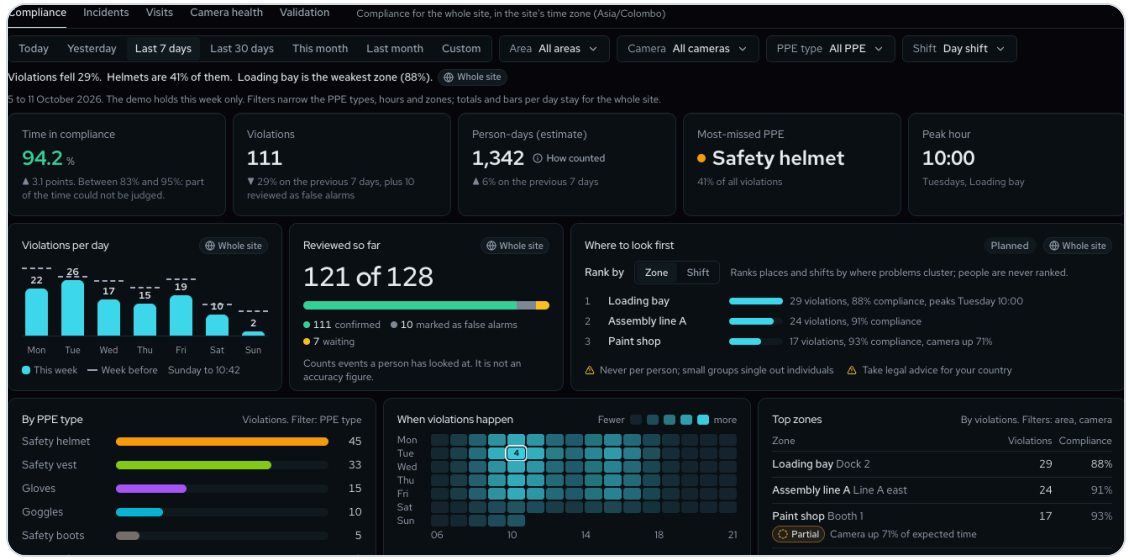
Schedules

Limit a rule to set weekdays and hours, for requirements that follow the shift pattern.

PPE types · Safety helmet · Safety vest · Goggles · Gloves · Safety boots · Face mask · Your own types

Six are on by default. Coverall, ear protection, face shield and safety harness switch on once a model detects them; dust coat and ear plugs are for labelling.

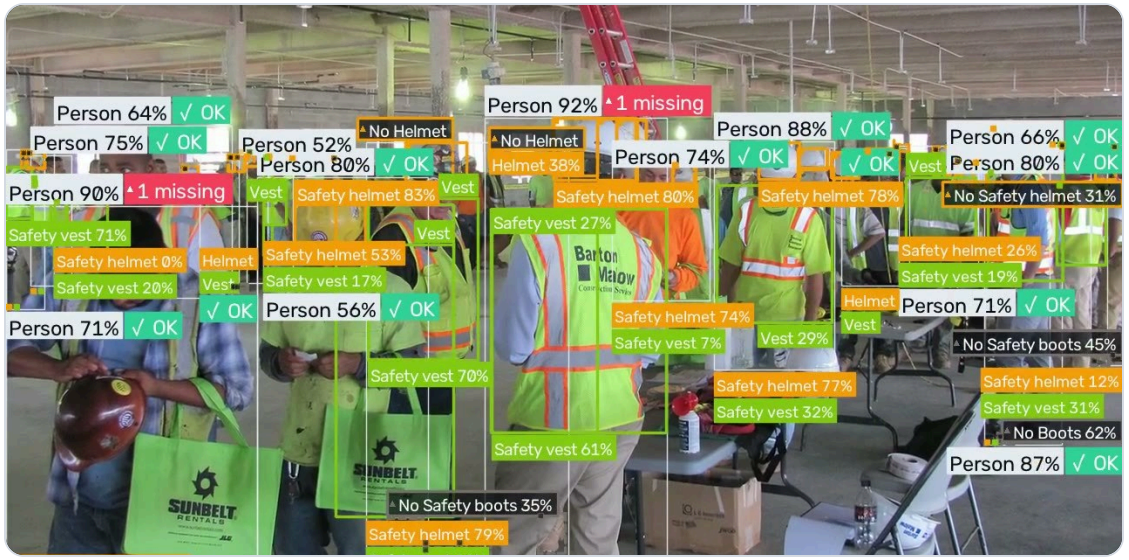
Know where it happens, and try it on your own footage



Reports

Available

The compliance summary for any period, filtered by area, zone, camera, PPE type or shift, as a branded PDF or a CSV in your site's time zone. Visits, incidents and vehicles sit beside it as tabs.

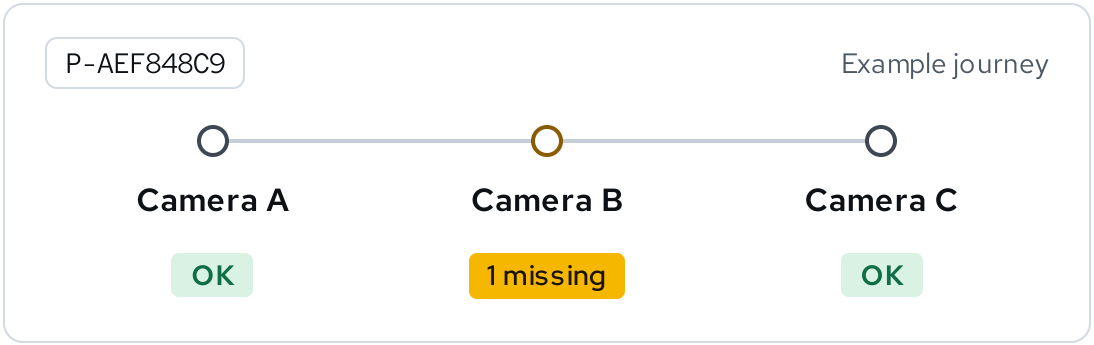


Test bench

Drop in an image or a stored video and see what the platform finds, before a single camera goes live. Run it in Fast, Accurate or Max mode, or compare two models side by side.

People across cameras, security when you need it

Follow people across cameras Available today

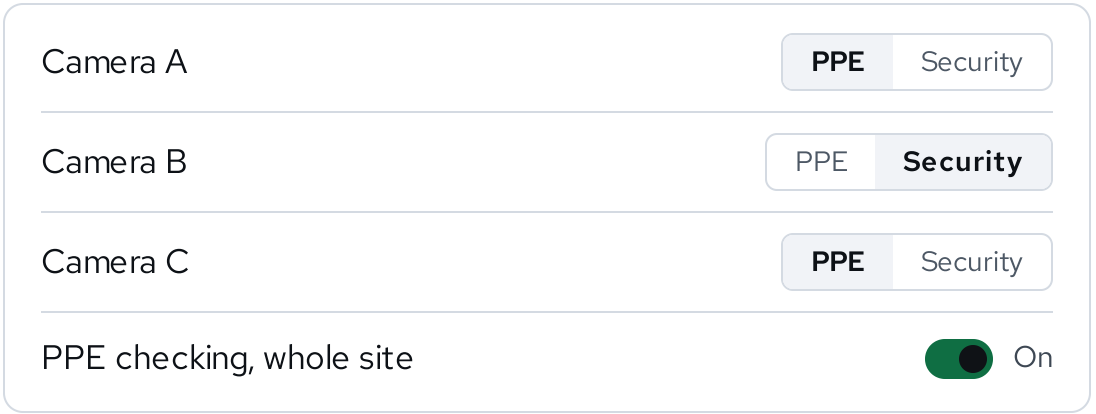


One id per person. It follows them from camera to camera, with compliance logged at each sighting.

Names, groups and merges. Enrol people from photos, name them, set a group or watchlist, and merge two ids that belong to one person.

Faces are opt-in. Named people are recognised. Under the strictest rules the face of an unnamed person is not kept; a profile can allow longer.

Security mode Available today



A mode for each camera. A security camera tracks people, logs who was seen where and when, and labels each one with a name, Unknown, or a possible watchlist match.

Security checks for unknown faces, watchlist matches, authorised-only zones, camera tamper, restricted areas and loitering.

Available **Floor map** with your cameras, people shown live and a muster roll-call.

It gets better on your site

Off-the-shelf models miss small PPE on wide, crowded views. Training on your own cameras gives the biggest gain, and the platform has that loop built in.

1
Mine
Uncertain frames are picked out for review automatically.

2
Review
Your team corrects boxes and labels, then approves.

3
Version
Approved samples become a fixed dataset version.

4
Train
Runs in idle hours and pauses when the site is busy.

Two checks before a model goes live

5
Validate
Each candidate is scored on a golden set it never trained on, and compared with the live model item by item.

6
Activate
A person switches it on. Rollback restores the previous model.

No model goes live by itself. Activation needs a passing golden-set score and no item worse than the live model, or a written reason that is kept in the audit log.

Any site with cameras and a safety or security job

Manufacturing and process plants

Helmets, goggles and gloves, set for each machine area. Ear protection once a model detects it.

Construction

Helmets and vests across the site. Safety harness for work at height, once a model detects it.

Warehousing and logistics

Vests and safety boots on the floor, plus person near forklift and person down.

Oil, gas and chemicals

Goggles and gloves in process areas. Face shields and coveralls once a model detects them.
Fire and smoke early warning, to supplement your certified fire alarm.

Mining and quarries

Helmets, vests and boots, plus restricted areas. Ear protection once a model detects it.

Ports and terminals

Helmets and vests across wide yards, plus vehicle counts, number plates and person near forklift.

Utilities and energy

Helmets and gloves, plus zones for authorised people only. Face shields and harnesses once a model detects them.

Food and pharma cleanrooms

Masks, gloves, hairnets and aprons in each cleanroom zone, with a hygiene preset.

Coming Dust coat and ear plugs: label now, detect once a model is trained.

After-hours security for any site

Security mode logs who was seen where, and when, on any camera. Security checks raise alerts for unknown faces, watchlist matches, people not allowed in a zone, restricted areas, loitering, and cameras blocked or moved.

Built to run on your site, under your control

One on-site server

Ubuntu, Windows or macOS, with an NVIDIA GPU or Apple Silicon. One-click install on each. Helper servers of yours can share the work.

Works offline

After installation the site needs no internet. A licence file activates it offline, or a product key online. Models and recordings are local files.

Data stays on site

Video, evidence, people data and models live on your server. Privacy rules follow your country, and camera sound is off unless an admin switches it on for one camera.

Roles and an audit log

Four built-in roles and custom roles you define, two-step sign-in. Every change is logged.

HTTPS and encrypted passwords

Traffic runs over HTTPS. Camera passwords are stored encrypted.

The cameras you have

Any RTSP camera or recorder, with presets for Hikvision, Dahua and EZVIZ.

Backups and upgrades

Nightly backups, with a warning when they stop or fail. An administrator installs a signed update file from Settings: one-click updates and rollback.

Remote access, when you want it

Reach the site through an outbound tunnel, with no inbound ports to open.

Fully white-label

Sell it under your own product name, logo and colours, which the licence sets. The sign-in page and every screen use them.

What is live today, and what comes next

Now

Available today

- Live wall with compliance tags
- Areas, presets, zone rules, schedules
- Amber warning, then confirmation, per rule
- Evidence, review, incidents, visits
- People ids, opt-in faces, groups, watchlist
- PPE or Security mode per camera
- One event per person; overlap shown as a range
- Overview, Reports with PDF and CSV
- Test bench; left-behind and blocked-exit checks (Experimental)
- CCTV playback, signed exports, PTZ
- Storage forecast, clean-up and retention
- Alarms: siren, email, SMS, WhatsApp, webhook
- Time in compliance, coverage, measured ranges
- Fire and smoke early warning, person down, phone use, forklift, lone worker
- Security checks: unknown face, watchlist, tamper, restricted area, loitering; Object seen rule
- People counting, lines, limits; area analytics, dwell, queues
- Floor map with live people, blind spots and muster roll-call
- Training loop with a validation report
- No new model worse than the live one
- A blind weekly accuracy check per camera
- Approved accounts, two-step sign-in, audit log
- Privacy rules for your country; sound off by default
- White-label set by the licence
- Apps page, video search and incidents with shift handover
- Visitor kiosk with a PPE check and badge
- Sound alarms and calls for help; time and attendance
- Signed releases; Windows and Mac services
- Vehicle counts, number plates, parking bays

Next

In progress or next

- **Email beyond alarms.** Daily and weekly digests, back-to-normal messages and editable wording.
- **Online activation.** The service is built; it waits for the vendor's activation address and production key. Licence files work offline today.
- **Shift handover by email,** signed and masked for each recipient.
- **Kiosk face matching.** Linking a visitor's face to their expected visit.
- **Ask the site** with a local language model and the site's manuals; today it answers by fixed rules.
- **Sinhala and Tamil** screens, alerts and reports.

One server, every camera app

Sold under your own name. An Apps page switches each one on and off, and the licence decides which a site may use.

CCTV and recording

Available

PPE compliance

Available

Security

Available

Safety checks

Available

Footfall and area analytics

Available

Vehicles and number plates

Available

Video search

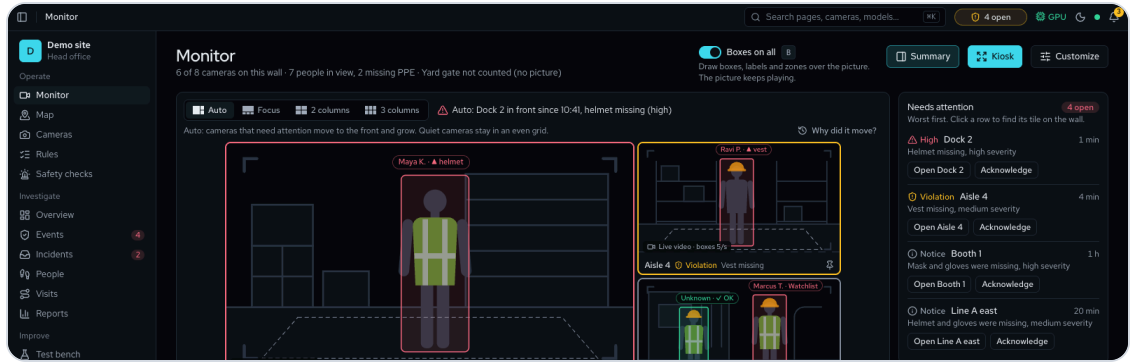
Available

Time and attendance

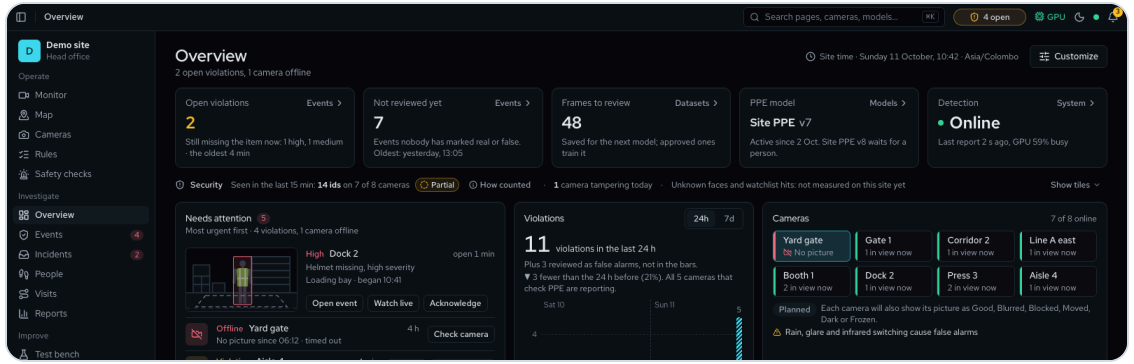
Available

Today's pages

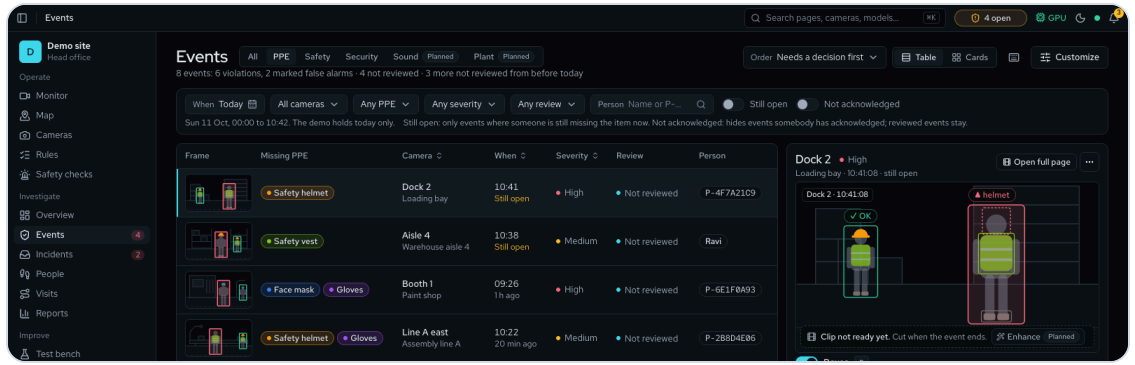
Available



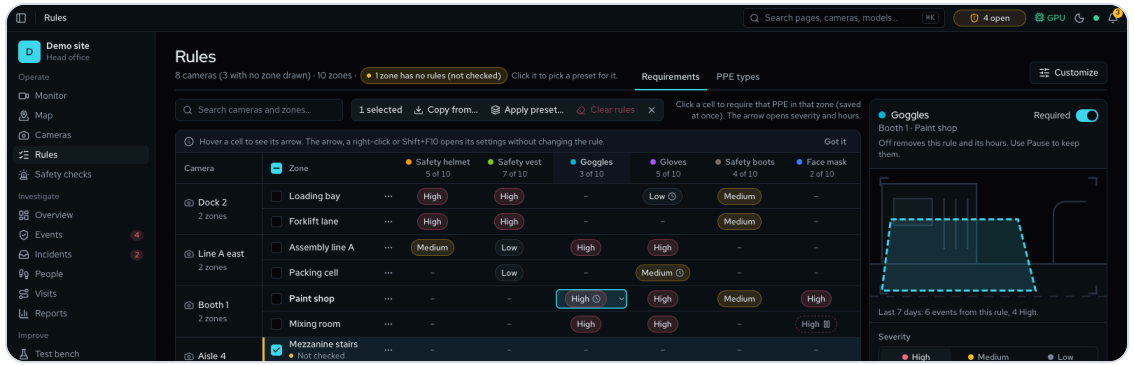
Monitor. The Monitor: cameras that need attention move to the front with the reason shown, one switch draws or hides the boxes over live video, and every tile says how fresh its picture is.



Overview. Camera health, open violations and the day's trend at a glance, with what needs attention first at the top.



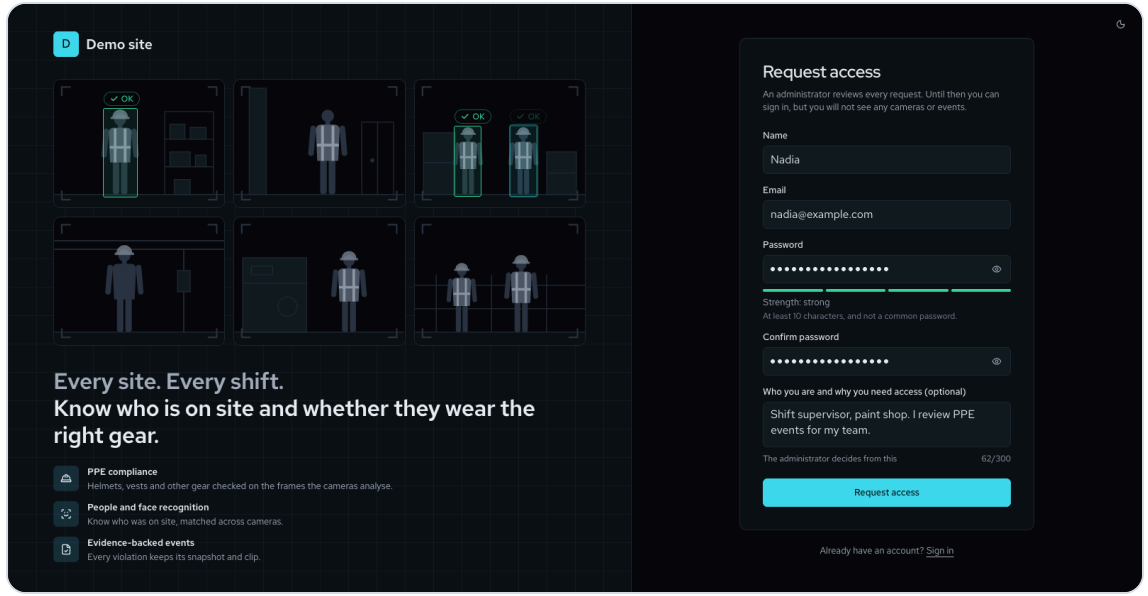
Events. Every violation with its snapshot, missing PPE, severity, person and review state, filtered in one click, with the evidence beside the list.



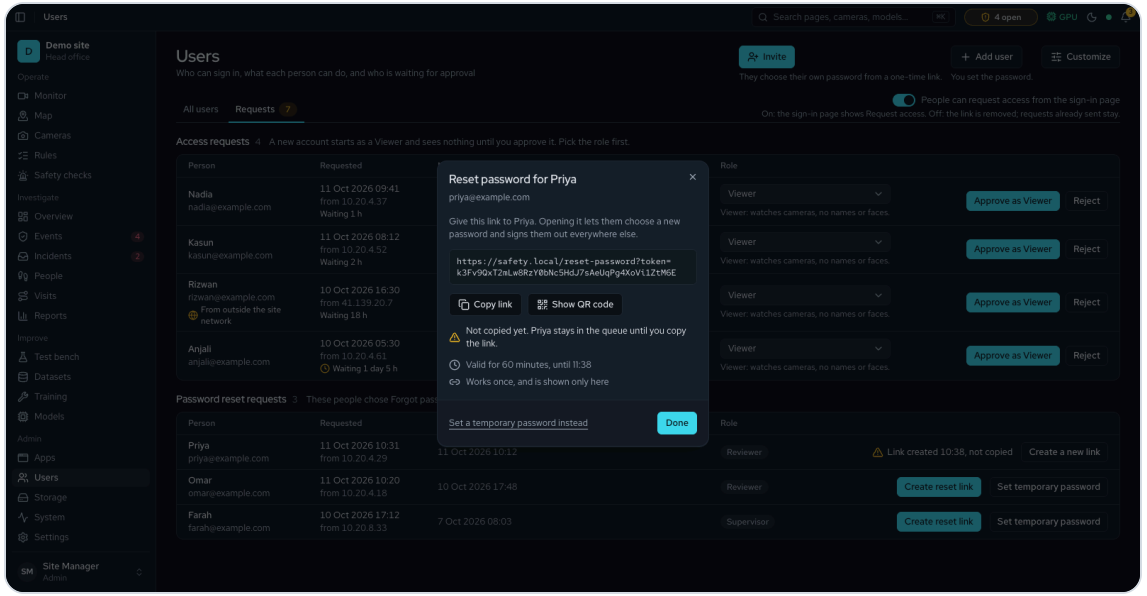
Rules. The PPE each zone requires, with a severity and a schedule per cell, edited in one matrix.

How it will look: Accounts

Available



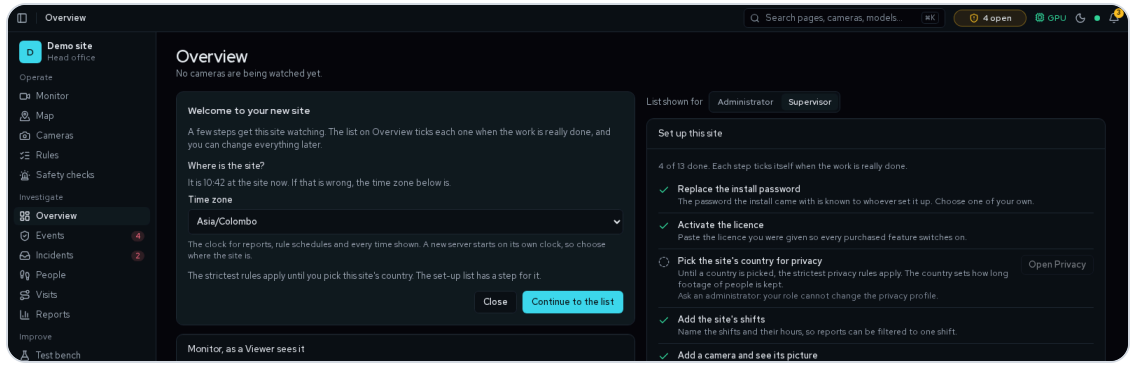
Request access. A new person asks for access from the sign-in page, then sees nothing until an administrator approves them and picks their role.



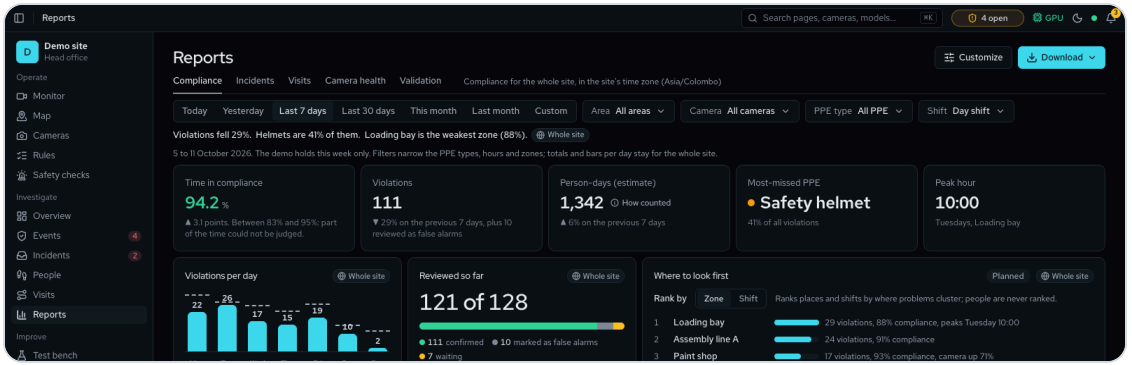
Approvals and reset links. Administrators approve or decline requests, pick each person's role, send invitations, and hand over a one-time link when someone forgets a password, with no email needed.

How it will look: Client go-live

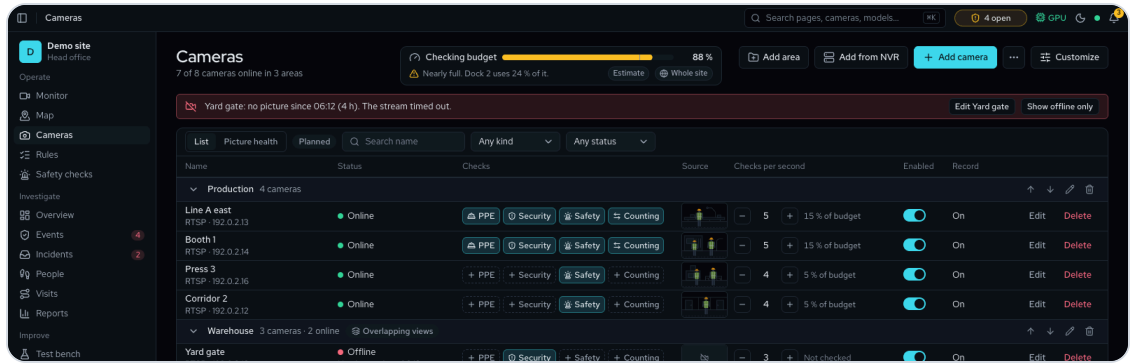
Partly available



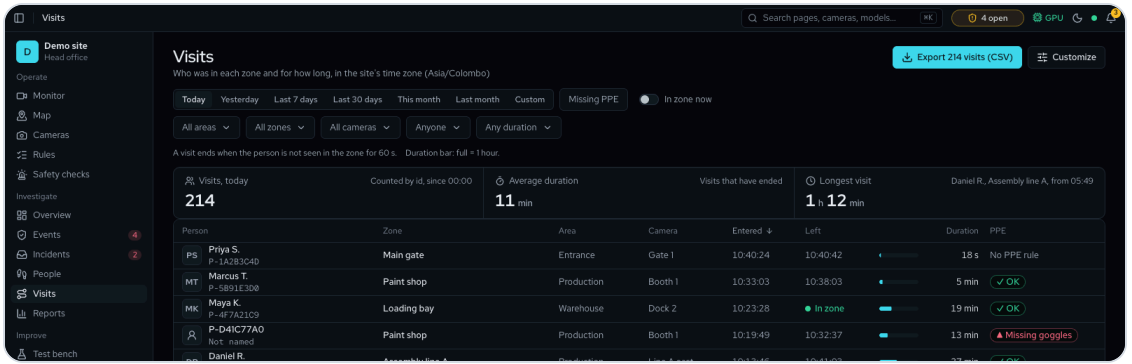
First-run set-up. A new site's first administrator sets the site's clock in a short welcome, then follows a list that ticks each step when the work is really done.



Reports. The Reports page: KPIs against the previous period, an hour-by-weekday heatmap and top zones, and every report as a branded PDF or CSV.



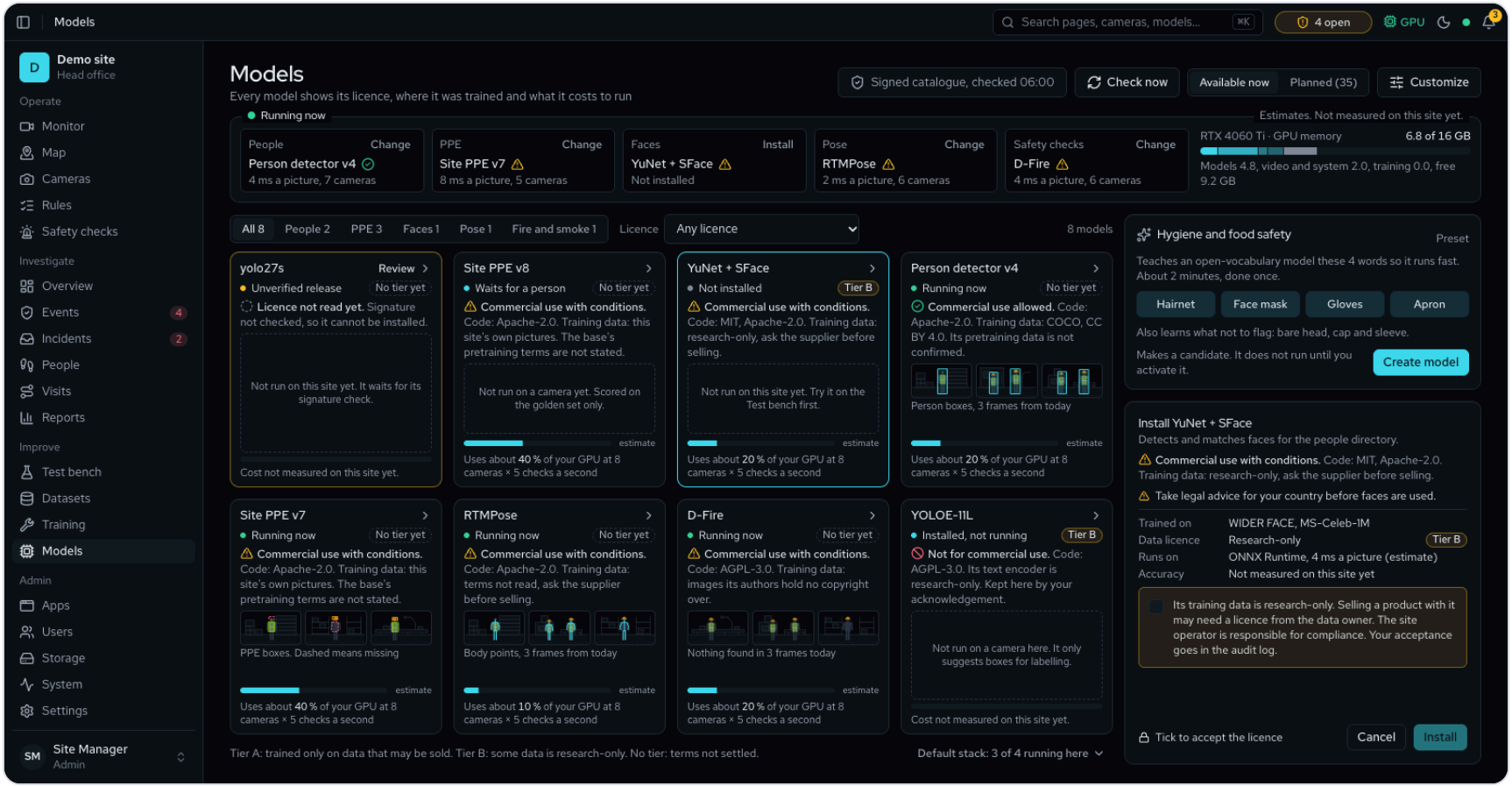
Cameras and areas. Cameras grouped into areas, with the checks each one runs, how many pictures a second it is checked and what that costs, plus camera presets, a test connection and an NVR's channels added in one step.



Visits. Zone-level visits with how long each person stayed, in a visit log to filter and export as CSV.

How it will look: Sell-ready white label

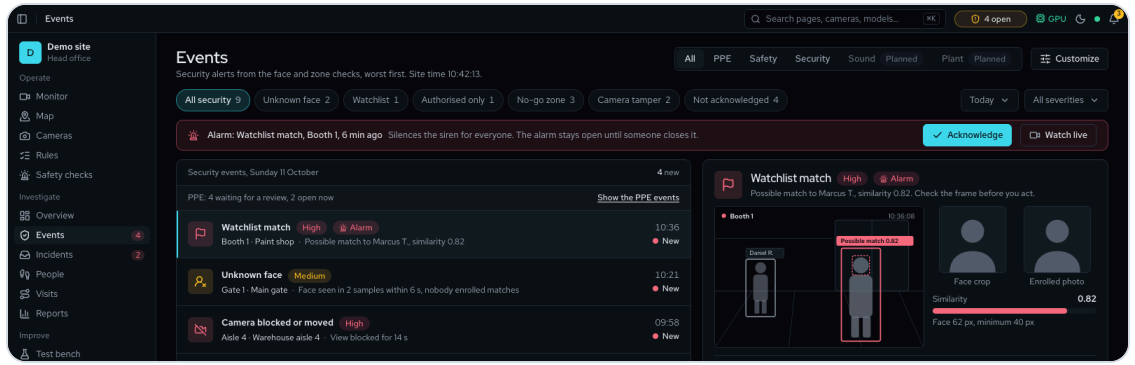
Available



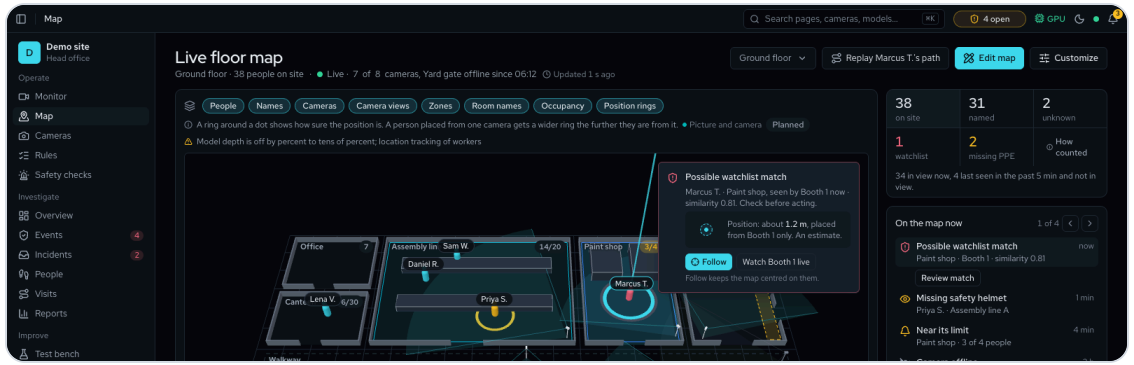
Model library. Every model carries a licence badge, and installing one asks no licence question. The hygiene and food-safety preset is built.

How it will look: Security system

Partly available



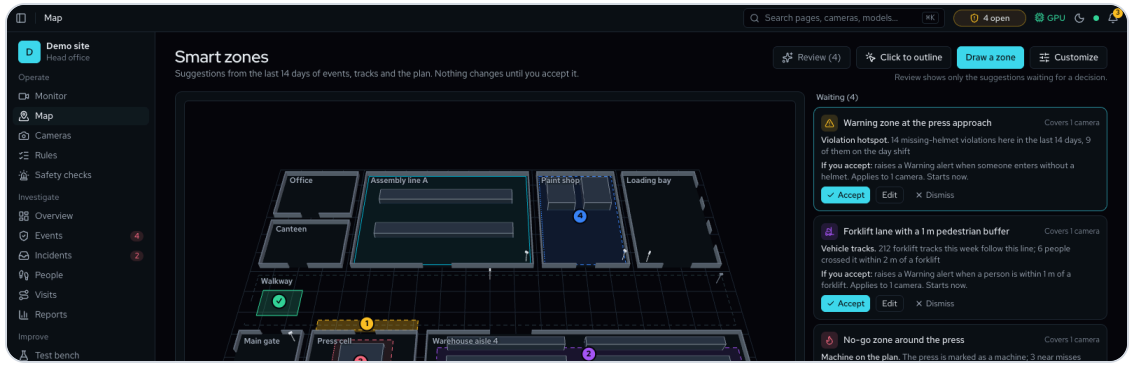
Security alerts. Alerts for unknown faces, watchlist people, authorised-only zones, after-hours presence, and covered or moved cameras.



Live floor map. The site's floor map, live and in 3D: people named when enrolled, vehicles, alarms, occupancy and camera coverage. Turn or zoom it; point at a camera for its live view and nearby cameras. Vehicles on the map are still in progress.



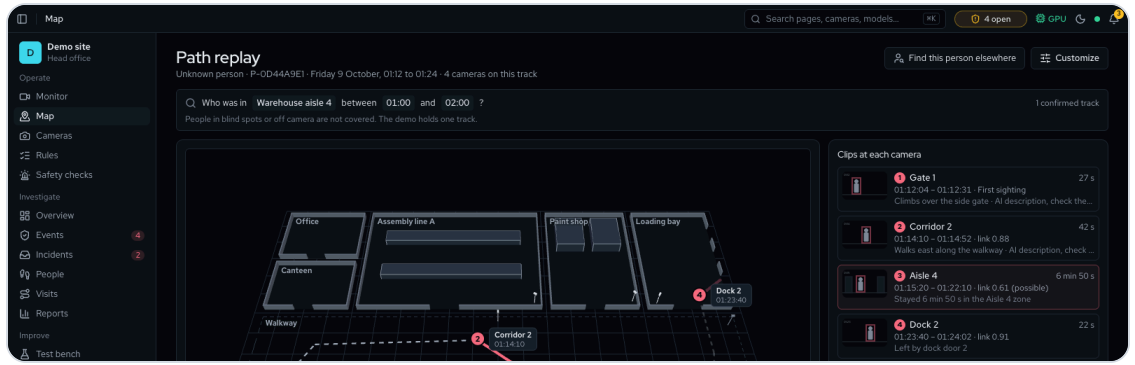
Floor map studio. Draw the site, upload a plan, or photograph a rough sketch and let the on-site AI turn it into a clean floor map, then place each camera on it.



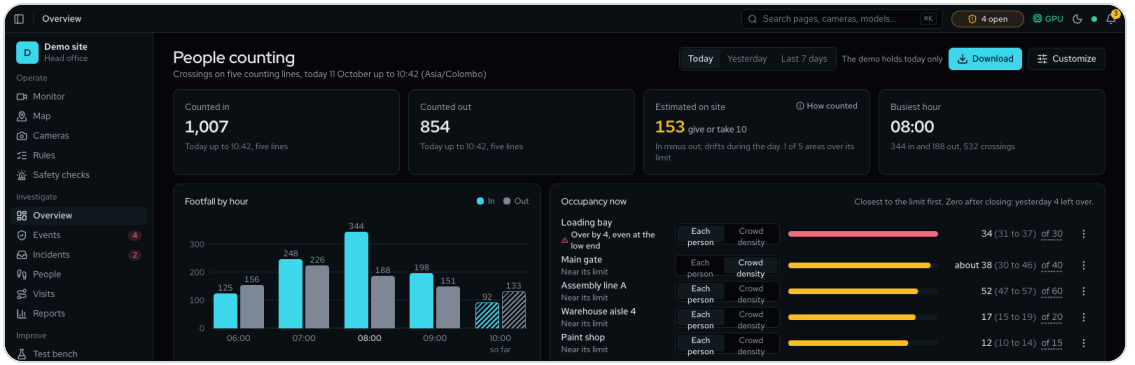
Smart zones. Zones drawn once on the map cover every camera that sees them, and the map suggests no-go and warning zones from the site's own events and tracks.

How it will look: More apps

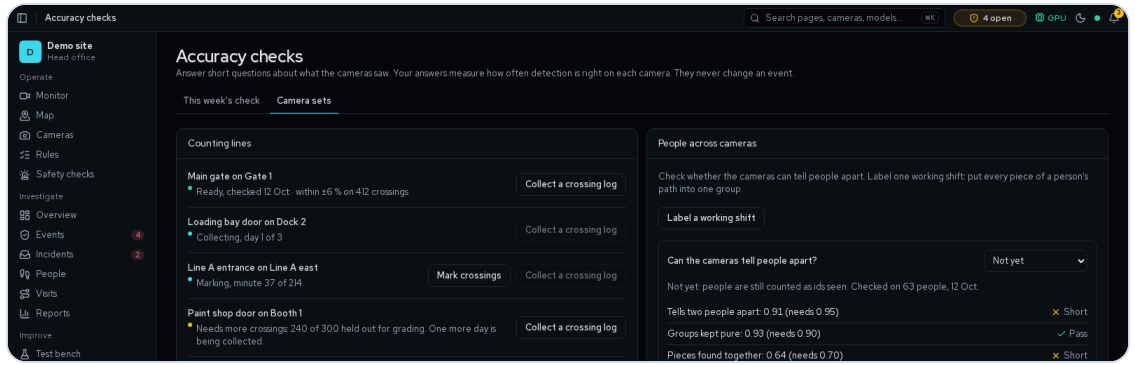
Partly available



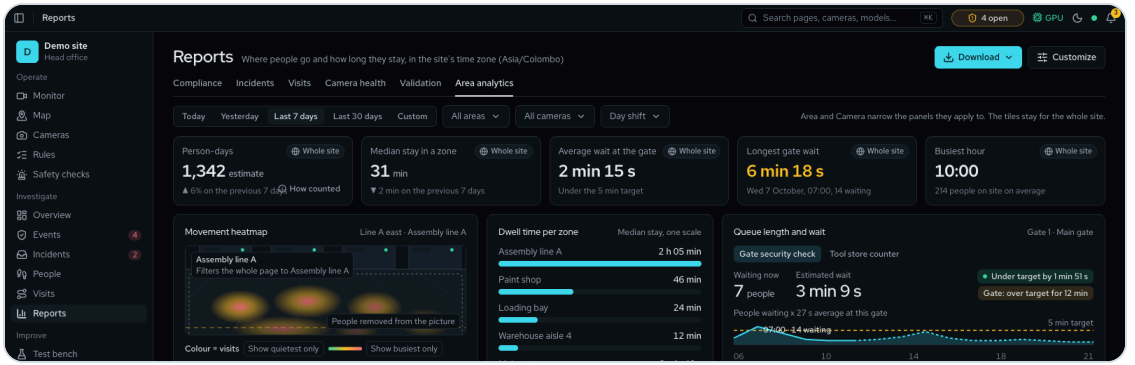
Path replay. Follow one person across every camera on the floor map, replay their route with the clips, and export it as evidence, such as an unknown visitor's path at night.



People counting. In and out counts on counting lines, live occupancy per area with limits, and footfall by hour.



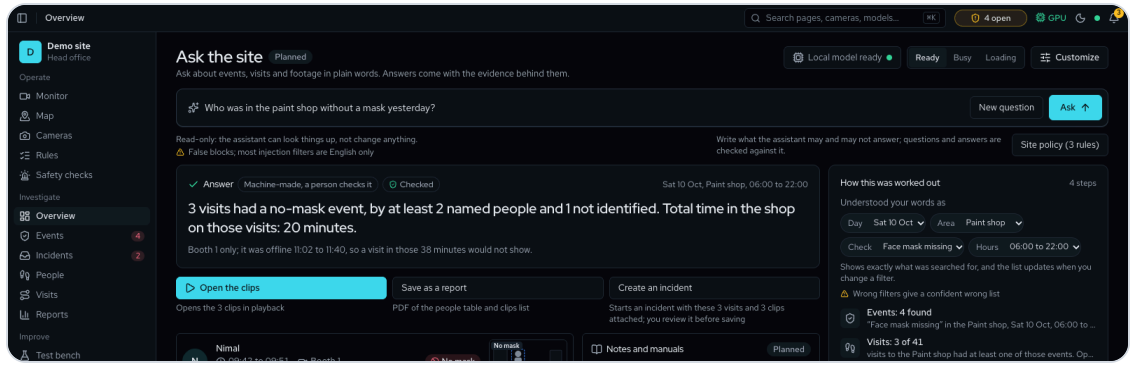
Accuracy checks. Reviewers answer short questions about what the cameras saw, mark every crossing on a counting line, and group a shift's people, so each count carries a measured accuracy.



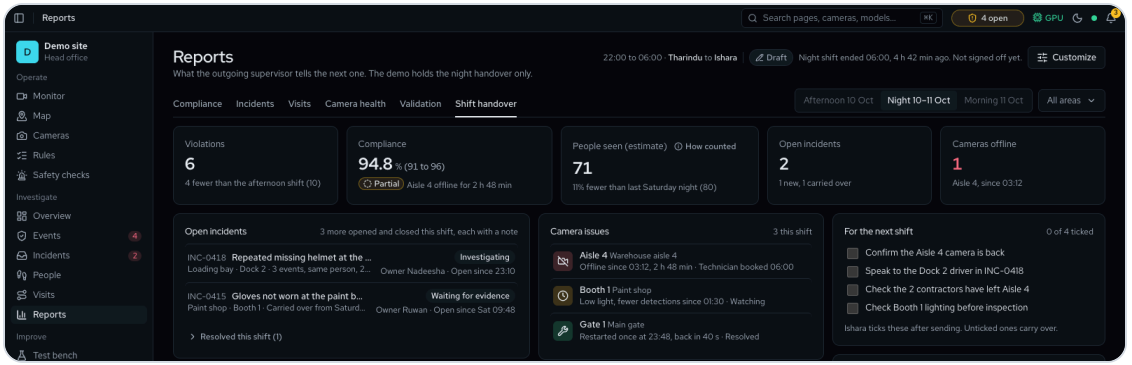
Area analytics. Movement heatmaps, dwell time per zone, queue length and wait, and the busiest areas and hours.

Designed screens

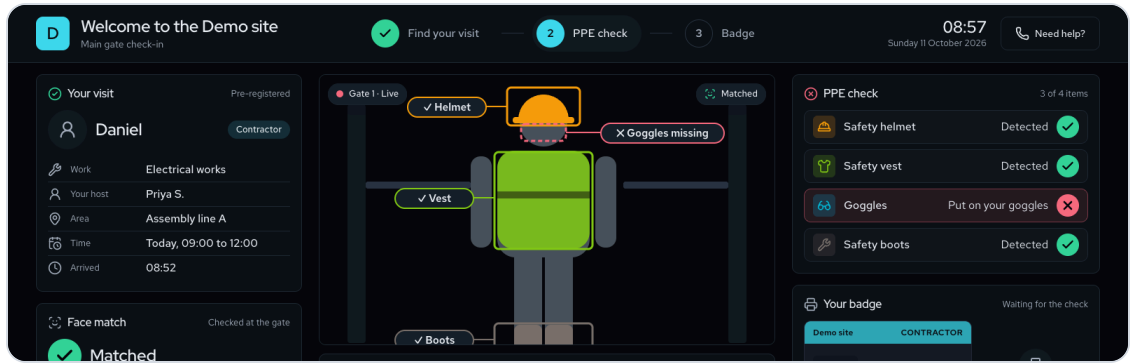
Partly available



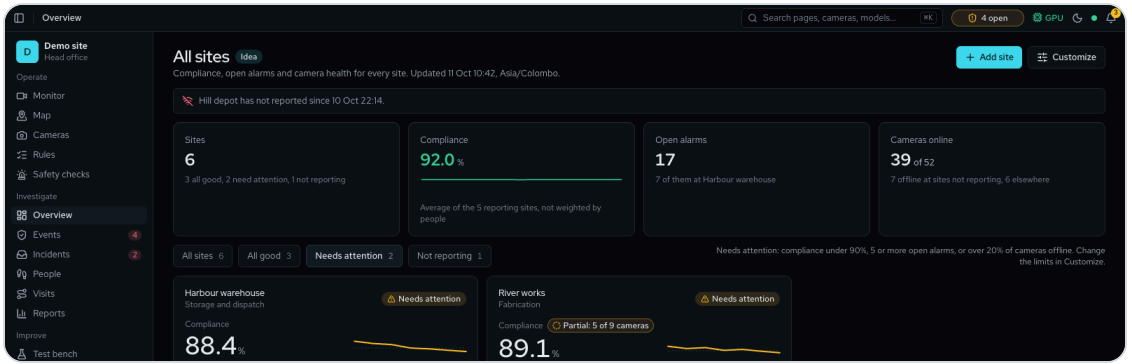
Ask the site. Ask in plain words, such as who was in the paint shop without a mask yesterday, and get answers with the evidence, worked out on site.



Shift handover. A summary written for the next supervisor: violations, open incidents, camera health and notable movements on the last shift.



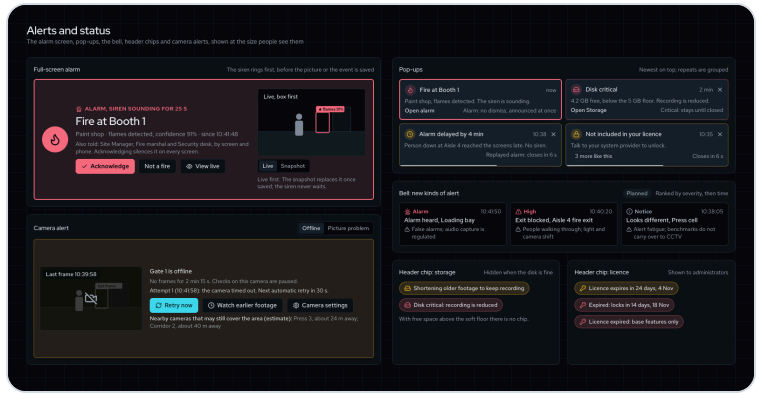
Visitor kiosk. Visitors and contractors check themselves in at the gate with their invitation's QR code or code; the camera checks their PPE and the kiosk prints a badge. Matching the face to the expected visit is in progress.



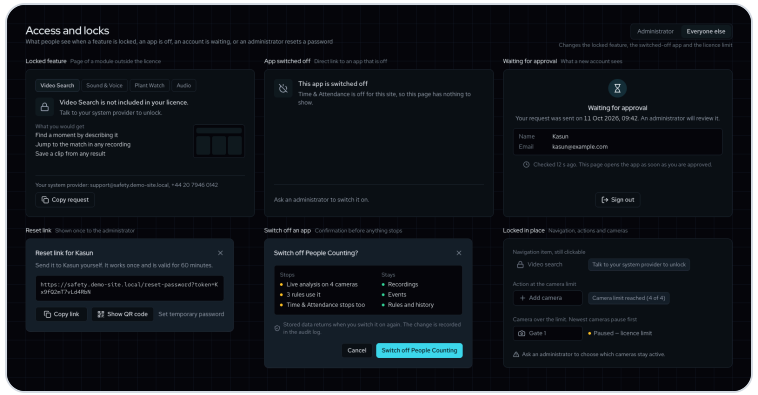
Multi-site view. Every site's compliance, open alarms and camera health on one screen for head office.

The small details

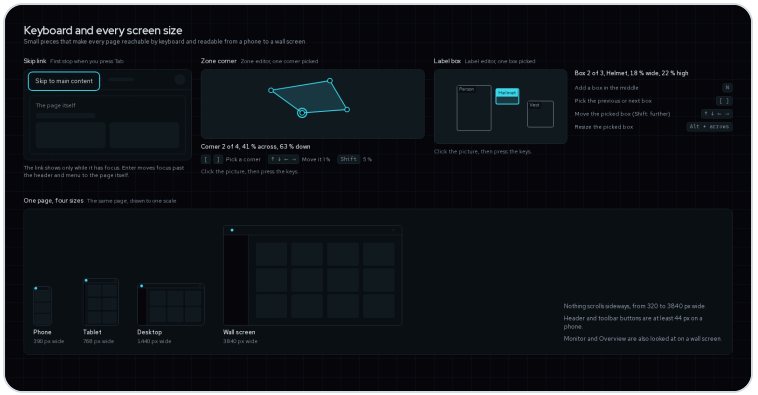
Partly available



Alerts and status. The smaller pieces: a full-screen alarm banner, notifications, header status chips for storage and the licence, and camera-offline alerts.



Access and locks. Locked features that say who to ask, an app switched off, waiting for approval, a one-time reset link, the switch-off confirmation, and the security check of the go-live settings.



Keyboard and every screen size. A skip link on every page, zone corners and label boxes that move by keyboard, and pages checked from a phone to a wall screen.

A four-week pilot on up to four cameras

Suggested pilot

Week 1

Site survey

Server installed. Up to 4 cameras connected.

Week 2

Zones, rules and a baseline

Draw zones, set the PPE rules for each area and record a baseline of events.

Weeks 3 and 4

Review, then train on your footage

Your team reviews events. The model trains on reviewed frames from your own cameras.

End

Results review

Walk through the results together and agree the next step.

A suggested plan. Timing adjusts to your site.

What we need from you

- [ ] **A camera list with RTSP access**
  Addresses and logins for up to four cameras, reachable from the server.
- [ ] **A place for the server**
  A location on the camera network, with a static address.
- [ ] **The PPE rules for each area**
  Which PPE each zone requires, and how serious a miss is.
- [ ] **A named safety contact**
  One person who reviews events and joins the results review.

Recommended server

Operating system
Ubuntu 24.04 LTS with Docker, or Windows 10 or 11

GPU
NVIDIA RTX 4060 Ti 16 GB, RTX 4070 12 GB or better (driver 580+)

Processor and memory
8 cores, 32 GB RAM

Storage
1 TB NVMe plus a recordings drive. Other sizes on the next slide.

Network
Internet for the install only. The site then runs offline.

Choose a server for your site

Minimum

Trials, demos and a few cameras

Processor	6 cores
Memory	16 GB
GPU	NVIDIA RTX 2060 6 GB or T4 (driver 580+), or an Apple Silicon Mac with 16 GB
Storage	512 GB SSD
Network	1 Gb Ethernet
Operating system	Ubuntu, Windows or macOS

Recommended Best value

A typical site, training in idle hours

Processor	8 cores
Memory	32 GB
GPU	NVIDIA RTX 4060 Ti 16 GB, RTX 4070 12 GB or better
Storage	1 TB NVMe for the system, models and evidence, plus a recordings drive
Network	1 Gb Ethernet, cameras on their own network
Operating system	Ubuntu 24.04 LTS with Docker, or Windows 10 or 11

Best performance

Many cameras, training while live, the thorough Test bench mode

Processor	16 cores or more
Memory	64 GB
GPU	NVIDIA RTX 4090 24 GB, RTX 5090 32 GB or RTX 6000 Ada 48 GB
Storage	2 TB NVMe plus a RAID recordings array
Network	2.5 or 10 Gb Ethernet
Operating system	Ubuntu 24.04 LTS with Docker

Recordings take about 43 GB per camera per day at 4 Mbit/s, so size the recordings drive for the days you keep. The System page runs a load test on your own server and says how many cameras fit, so the tiers name a use, not a camera count. Example: 4 cameras for 4 weeks at 4 Mbit/s need about 4.8 TB, so a 4 TB drive keeps about 22 days; at 2 Mbit/s (H.265) they need about 2.4 TB, and a 4 TB drive keeps about 45 days.

Start with a pilot on four cameras

Four weeks, one site, and a results review at the end.



Each person is tagged OK, or with what is missing.

Software
Version 1.1.804
Code name Sentinel

Code owner
Altavision
altavision.lk

Author
Deeghayu Adhikari
deeghayu.netlify.app

© 2026 Altavision. All rights reserved.