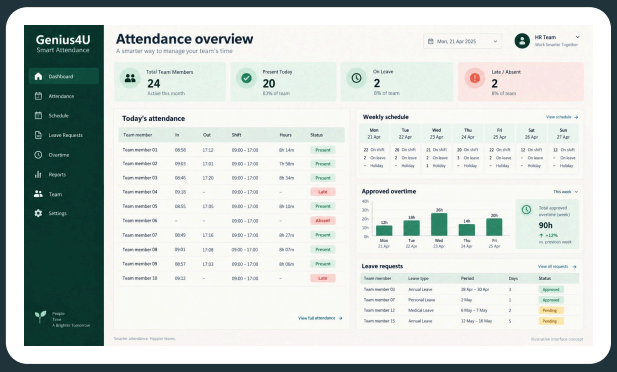
Smart Attendance & Workforce

From defensible punch evidence to payroll-approved hours.

A policy-led system for companies, branches, departments, teams and employees. It separates original device evidence from derived hours, routes exceptions to accountable people, and closes a payroll period only after approval.



Program interface design

Policy-aware time

Event integrity

Approved outputs

THE PRECISION RAIL

1. Capture → **2. Calculate** → **3. Reconcile** → **4. Close**

Immutable punch | Policy and schedule | Reasoned corrections | Payroll-approved export

Software-only professional edition

USD 2,900

Commercial terms, independent hardware and physical dongle requirements appear on page 11.

02

SCHEDULE RULE MATRIX

Make the policy explicit before calculation

A time result is only as defensible as the rule behind it. The schedule record links an employee to a company, branch, department, team, manager, calculation policy and effective work pattern. The system can distinguish fixed shifts from flexible, overnight or approved field work instead of forcing every event into one universal clocking rule.

Rule family	Expected evidence	Calculation treatment	Review trigger
Fixed day 09:00–17:00 example	In / out; paid or unpaid break	Compare planned window, break rule and lateness	Missing end event or off-shift punch
Flexible / part-time weekly or daily target	Policy-allowed start/end events	Derive worked duration within policy boundaries	Outside agreed availability
Overnight shift spans date boundary	Start on one date; end on next	Allocate to the scheduled overnight shift	Unmatched cross-midnight event
Remote / field under policy	Approved mobile or supported route	Apply approved schedule and evidence rule	Location/policy exception for review
Holiday, weekend, DST calendar-aware	Date, time zone and policy context	Apply holiday / time-zone / daylight-saving rule	Conflict between policy and roster

Schedule record

Assign effective dates, work pattern, break handling, holiday calendar and time-zone context. A policy change should be attributable to the person and date that made it.

Calculation boundary

Late, absence, off-shift and overtime are exception states, not silent edits. The system preserves the source event and calculates against the chosen policy.

BUYER TEST Ask to walk a Friday-night shift across midnight, a paid break, a public holiday and a daylight-saving transition. Confirm which rule wins, how it is shown, and who can approve an exception.

The same structure can support English/Arabic RTL application options and role-separated administrator, employee, supervisor and accountant accounts. Mobile access is according to contracted scope; policy ownership remains with the organisation.

03

EVENT INTEGRITY

From device evidence to derived hours

A raw punch is evidence, not a payroll total. Attendance capture stores the device ID, employee or card ID, event timestamp, event type and a unique event ID. Validation can reject duplicate deliveries while retaining the original record separately from the later calculation. That separation makes a corrected total explainable without rewriting what the device originally reported.

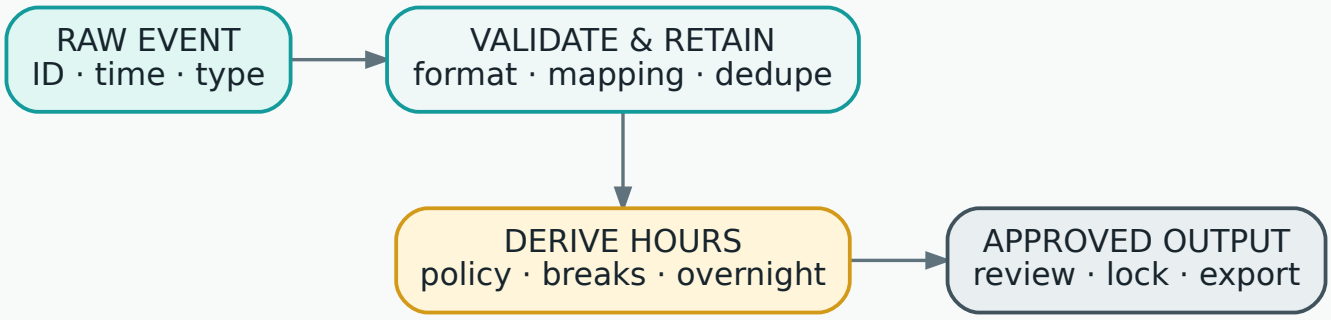


Figure 1: Diagram 01 — The evidence pipeline moves forward from a retained event to an approved output; it does not overwrite the original punch.

RAW EVIDENCE	POLICY INPUT	EXCEPTION	APPROVED OUTPUT
Device ID + unique ID	**Schedule + break rule**	**Late / missing / off-shift**	**Hours by category**

Capture and adapter

RFID/NFC and access-terminal categories can feed approved device adapters. Actual model, firmware and interface rights are tested before purchase; the program is not tied to one hardware brand.

Rules before totals

The calculation engine applies assigned schedules, paid or unpaid breaks, weekends, public holidays, time zones, daylight-saving transitions and approved overtime according to the configured policy.

CONTROL POINT A duplicated transmission may be rejected for calculation while its original delivery remains traceable. A later correction creates its own reason, approval and audit trail; it is not a hidden replacement of source evidence.

04 EXCEPTION WORKFLOW

Missing punch and correction approval

A late arrival, an absent employee, a missing punch or an off-shift event should enter a visible queue. Employee self-service can create a correction request with a reason, claimed time and supporting note. Supervisors review the request against the roster and retained event history; they may approve, decline or return it for detail. The calculation is refreshed only after an accountable decision.

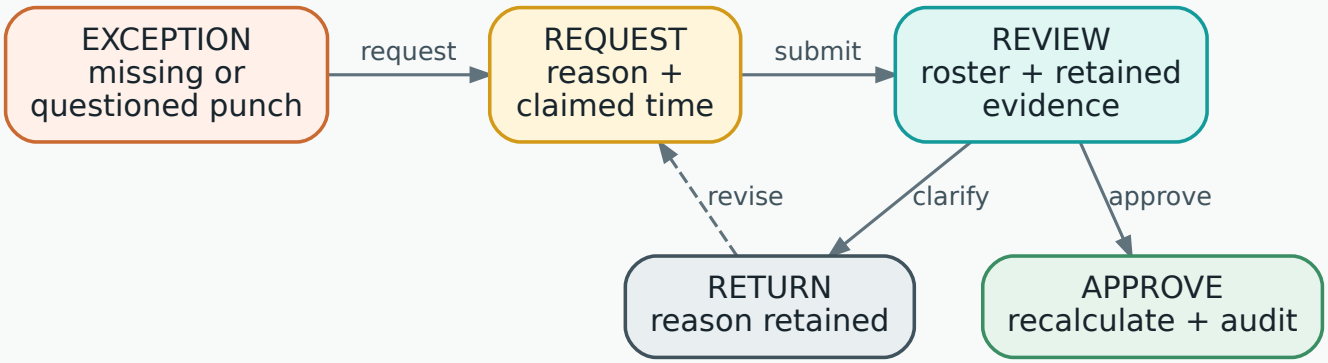


Figure 2: Diagram 02 — A correction moves through a reasoned state model. Decline and return states preserve both the request history and the original device events.

Review screen: minimum decision context

WHO
Employee, manager, branch

WHAT
Event type and claimed change

WHEN
Roster window and timestamp

WHY
Reason, note and request status

Audit output
Store requester, reviewer, decision time, reason and the recalculated result. A payroll reviewer can trace why an exception disappeared from the queue.

ROLE SEPARATION Employees request; supervisors review; accountants receive approved time categories; administrators manage policies and roles. No role needs authority to erase original punch evidence.

Operational alerts can highlight unresolved exceptions before closeout. The alert is a prompt to inspect a record, not an automatic finding of fault or a performance score.

05

PEOPLE WORKFLOWS

Leave, overtime and self-service without blind edits

Attendance is connected to planned absence and approved extra work. Employees can see their own attendance, request a correction, submit leave or request overtime according to the organisation’s policy. Managers see the operational impact before deciding. Accountants receive a controlled category output rather than a mixture of unreviewed requests and raw clock events.

Employee console

Review personal schedule and events; submit leave, overtime or correction requests with a reason. Self-service does not grant self-approval.

Manager console

Assess date range, team coverage, schedule impact and evidence. Approve, decline or return a request with an auditable decision.

Accountant console

Use payroll-period-approved hours, not an informal running total. Filter by company, branch, department, team and date.

THE APPROVAL LANE

Request leave / overtime / correction → **Review** roster + policy + reason → **Decision** approve / decline / return → **Output** recalculate or record absence

Useful policy fields

LEAVE	OVERTIME
Type, dates, balance rule, approval	**Requested window, reason, approval**
BREAK	**ALERT**
Paid/unpaid treatment and window	**Escalation owner and due date**

No automatic payroll release

An approved leave or overtime decision informs the calculation. Final payroll approval remains a distinct period-close authority.

PDF/Excel reporting, transaction audits and configurable business alerts can be scoped with the application. The organisation defines thresholds, approval levels and retention rules.

06

MULTI-BRANCH CONNECTIVITY

Online coordination with bounded local buffering

Multiple companies and branches need one policy language without pretending every network is continuously available. A supported local gateway can receive device events over a branch LAN, validate format, deduplicate deliveries and buffer events while a connection is interrupted. When connectivity returns, it can resynchronise an authorised event set through a secure API. Capability depends on the selected device and integration route.

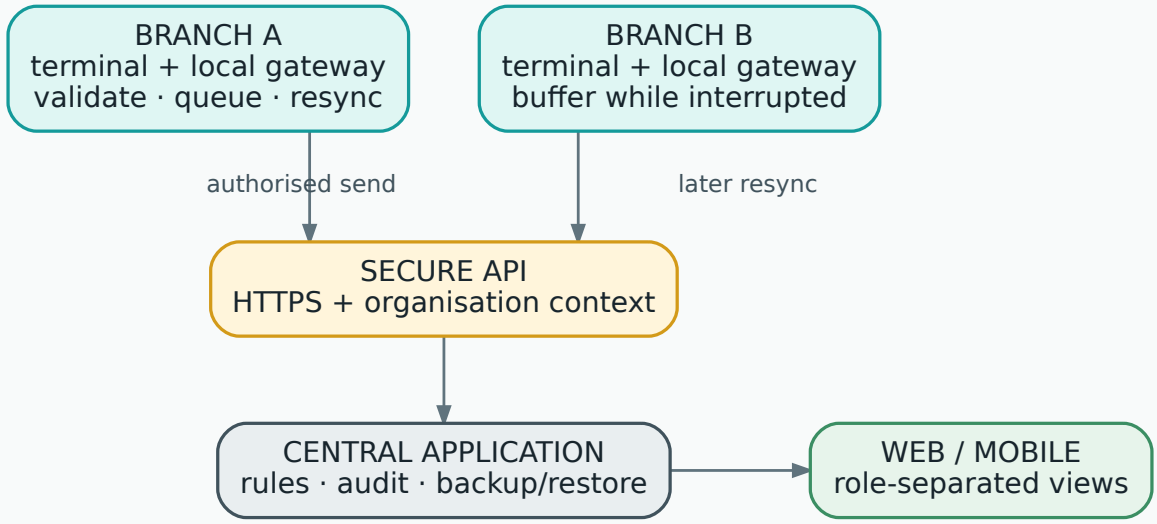


Figure 3: Diagram 03 — Approved branch routes buffer and resynchronise through the central application; this is a supported pattern, not a blanket offline promise.

LAN at the branch

An approved local gateway route connects terminals. Procurement validates device, firmware, adapter and power/ network design.

HTTPS across sites

HTTPS carries authorised application traffic; each transaction retains role and organisation context.

Resync and recovery

After reconnection, queued events reconcile with visibility of late or duplicate delivery; backup/restore is tested.

CONNECTIVITY BOUNDARY Remote and field attendance may use approved mobile workflows under policy. A secure API or vendor SDK is an integration route; it is confirmed in separately agreed scope and must not be read as universal device support.

Web dashboard and mobile access are governed by contracted scope and role separation. The design supports central visibility while retaining branch, department and team context.

07

IDENTITY ≠ DOOR COMMAND

RFID/device mapping and independent door control

One card can participate in more than one operational system, but the responsibilities must stay separate. An attendance adapter maps an approved RFID/NFC or terminal event to an employee or card identifier for time evidence. A local door controller remains responsible for door-critical decisions. Attendance calculation does not become the authority that unlocks a door, and a door event does not automatically prove worked time.

Attendance evidence

Card/employee mapping → device ID → timestamped event → validation → schedule calculation → approval queue.

TIME POLICY OUTPUT

≠

Door-critical control

Reader/controller route → local access decision → door action and security event according to the independent access-control configuration.

LOCAL CONTROLLER AUTHORITY

Mapping register

Maintain device ID, reader location, branch, card/employee mapping and validity status. A mapping change is auditable because it changes how a future event is interpreted.

Independent interfaces

USB HID, TCP/IP, REST/vendor SDK or approved controller routes may be assessed. OSDP is a possible reader/controller route, subject to the selected vendor interface and secure-channel configuration.

DOOR-CRITICAL INDEPENDENCE If central attendance connectivity is unavailable, a compatible local door controller can continue its own configured access decisions. This is intentionally separate from online attendance synchronisation.

No biometric legality, facial-recognition attendance or specific device-model compatibility is assumed. The buyer validates the selected device interface, policy and local permissions before purchase.

08

SCOPED INTEGRATION OPTION

Camera incident links and recording access

Some organisations need an attendance exception to point an authorised security investigator to a relevant entry incident. A separately scoped camera/VMS integration can link an exception reference, branch, entry point and time window to permitted recording access. The attendance system remains a time-policy application; the external VMS or recording service remains the media system of record.

Incident context

An authorised reviewer can use an exception ID, entry point and time window to locate relevant footage through an approved external route.

Policy-controlled access

Purpose, user role, retention, access logging and vendor interface rights are confirmed before the option is enabled. Recording access is not implied by attendance purchase.

Explicit exclusions

No automatic performance monitoring, facial/emotion inference, blanket surveillance or facial-recognition attendance is described or assumed.

A bounded incident path

Attendance exception → authorised incident reference → external VMS/recording search under policy → reviewer action recorded in the appropriate system. The link does not make a camera observation a time calculation or a performance verdict.

What to test in a scoped design

Confirm the permitted event fields, matching tolerance, who may open media, how access is logged, the recording owner, privacy/retention controls and the vendor’s supported interface. ONVIF Profile G is one possible recording/retrieval route, not a claim of included or universal VMS support.

Commercial boundary

Camera, VMS, video service, vendor licence and implementation costs are not included by implication. They require separately agreed scope and price.

09

PAYROLL-PERIOD CONTROL

Close only after reconciliation and approval

The payroll export is a controlled operational hand-off, not a raw-device download. During an open period, authorised users reconcile missing, late, absence, leave, overtime and off-shift exceptions. Managers confirm derived hours against the applicable schedule and approvals. A final payroll approver closes the period before an Excel, PDF or API output is made available.

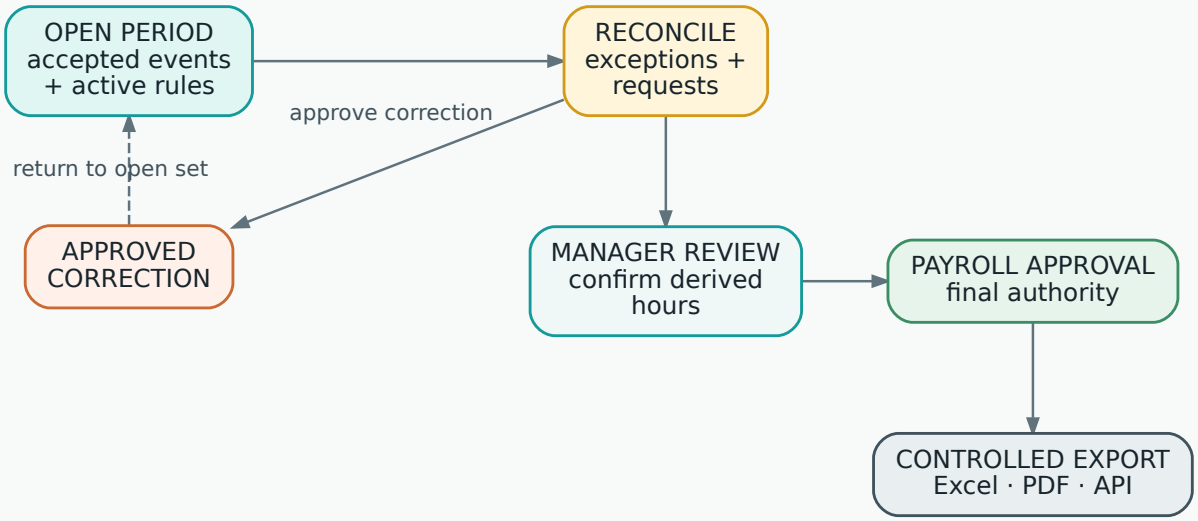


Figure 4: Diagram 04 — A correction returns to the open record set; reconciliation, approval and export remain controlled steps.

Controlled export fields

IDENTITY	PERIOD	TIME
Employee ID, company, branch, department	**Start/end date, schedule or policy context**	**Approved hours, break treatment, night time**
EXCEPTIONS	**CONTROL**	**ROUTE**
Late, absence, leave, approved overtime	**Period status, approver, audit reference**	**Excel, PDF or authorised API output**

Accountant view

Filter approved categories by company, branch, department, team and date. Original events remain available for audit rather than appearing as the payroll result.

Approval evidence

A closed output records who approved, when it closed and which period/version was exported. Reopening is accountable under policy.

RECONCILIATION PRINCIPLE Payroll receives approved derived inputs: hours, night, holiday, overtime, late and absence categories. A final payroll approval is required before the export is treated as the period output.

10

WHY USD 2,900

Specialised calculation and reconciliation, not simple clocking

USD 2,900 is the published software-only price for Smart Attendance & Workforce. The value is not a decorative clock-in screen. It is the specialist logic and operational record structure required to connect messy time evidence to a payroll-ready, accountable result across policies, branches and roles. The buyer should evaluate the hard cases, the audit path and the boundaries of each integration.

Policy calculation engine

Fixed, shift, flexible, part-time, remote, field, overnight and variable schedules need distinct treatment for breaks, holidays, weekends, time zones and daylight-saving transitions.

Evidence reconciliation

Device events, duplicate handling, retained source evidence, missing punches and reasoned corrections are different engineering concerns from displaying a clock.

Approval architecture

Self-service, supervisor review, accountant consumption and final payroll approval must keep responsibilities distinct while preserving who decided what and when.

Resilient branch route

Central branch visibility, approved adapters, local buffering/resync patterns, secure API routes, audits and backup/restore require deliberate integration boundaries.

BUYER EVALUATION

Test an overnight employee, a rejected duplicate, a missing punch, a paid break, a DST transition, an approved overtime request and a payroll closeout. Ask to see each original event, the applied rule, the approver and the final exported category.

USD 2,900

software-only

PRICE RATIONALE The price reflects specialised rule modelling, exception reconciliation, audit-grade separation of evidence and calculation, controlled approval paths and bounded integration engineering. It does not represent hardware, optional modules, customisation, installation, device/service integrations, third-party camera/VMS/video fees, support, tax or a promise of unlimited duration or installations.

11 TERMS, REFERENCES & ATTRIBUTION

Commercial clarity and implementation boundaries

Commercial terms

Price: Smart Attendance & Workforce is **USD 2,900 software-only**. Genius4U does not sell or supply any hardware or licensing dongles. A compatible **PHYSICAL licensing dongle** is required, **NOT a software activation key**; the customer/reseller secures it independently.

Optional modules, customisation, installation, device or service integrations have separately agreed scope and price. Licence duration, installations, support and tax are confirmed in written agreement; no indefinite, unlimited or all-included terms are implied. Third-party camera/VMS/PACS/video service fees are not included by implication.

All sales and payment arrangements are through WhatsApp +1 872 282 1722 only. Agents worldwide are welcome with written terms and no automatic exclusivity. No checkout or card-information forms are used.

Implementation boundaries

Device adapters, secure API routes, mobile workflows, local buffering/resync, camera/VMS links and any vendor SDK connection are subject to agreed scope, interface rights and validation. Hardware is sourced independently.

The application separates original punch evidence, derived calculations, corrections and approvals. It does not assume facial recognition, emotion inference, automatic performance scoring, automatic door authority or automatic payroll release.

Organisation-specific roles, retention, alert thresholds, policies, time-zone calendars and privacy controls are confirmed in the implementation agreement.

Compact technical references

• Security Industry Association — OSDP. OSDP describes controller/peripheral communication and Secure Channel capabilities; it is cited here only as a possible independent door-controller route.

• ONVIF Profile G. The profile describes recording and retrieval capabilities for IP video systems; it is cited only as a possible scoped recording route.

Colophon

Product facts: owner-approved Smart Attendance & Workforce specification. Interface image captioned “Program interface design.” Diagrams are original Graphviz sources prepared for this handbook.

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A time-policy handbook, not a device catalogue

Evaluate evidence integrity, calculation transparency, approval control and the independently validated integration path.