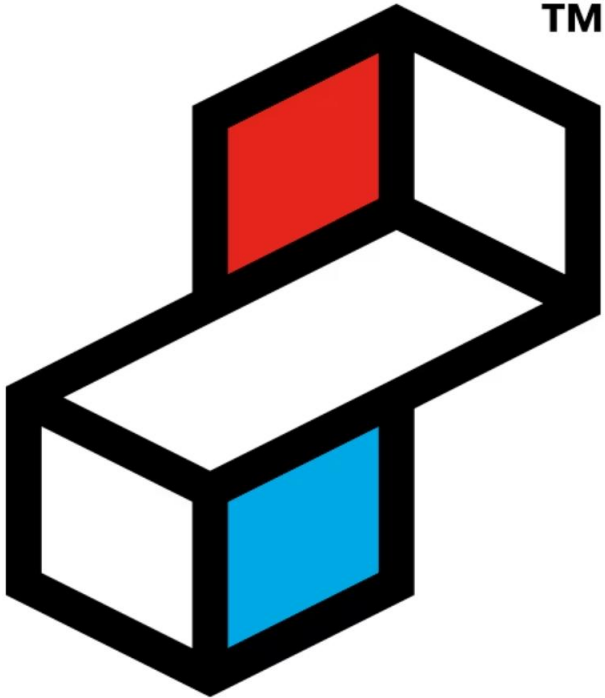


End-to-End TAPA TSR 1/2 Shipment Process

A maximum-detail operational guide covering every critical stage – from booking and risk assessment through secure transit, delivery, and post-operations – ensuring full compliance with TAPA TSR Level 1 and Level 2 requirements.

BOOKING → RISK → VEHICLE → DRIVER → ROUTE → DELIVERY → POST-OPS



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ADDING VALUE IS THE KEY.



TAPA TSR 1/2: End-to-End Process Stages

The TAPA TSR framework structures secure freight operations across seven distinct phases. Each phase carries mandatory controls, documentation requirements, and escalation procedures to protect high-value cargo throughout the entire supply chain lifecycle.

<p>01</p> <hr/> <p>Phase 0 – Pre-Operations</p> <p>Certification, personnel vetting, fleet preparation</p>	<p>02</p> <hr/> <p>Phase 1 – Shipment Initiation</p> <p>Booking, risk assessment, TSR classification</p>	<p>03</p> <hr/> <p>Phase 2 – Pre-Departure</p> <p>Vehicle check, driver briefing, route geofencing</p>
<p>04</p> <hr/> <p>Phase 3 – Loading & Handover</p> <p>Cargo verification, sealing, chain-of-custody</p>	<p>05</p> <hr/> <p>Phase 4 – In-Transit Operations</p> <p>Real-time monitoring, driver protocols, incident response</p>	<p>06</p> <hr/> <p>Phase 5–6 – Arrival & Delivery</p> <p>Gate arrival, GHA unloading, final-mile handover</p>
<p>07</p> <hr/> <p>Phase 7 – Post-Operations</p> <p>Billing, KPIs, investigation, archiving</p>		

0.1 Certification & Compliance Framework

Before a single shipment is booked, the transport provider and control tower must demonstrate full structural readiness. TAPA TSR compliance is not a point-in-time achievement – it is a continuously maintained operational standard verified through audit.



Transport Provider Requirements

- TAPA TSR Level 1 or Level 2 certification
- Valid, current audit report on file
- Documented SOPs aligned to TSR standard
- Incident reporting procedures
- Active security management system

Control Tower Capabilities

- 24/7 continuous monitoring operations
- Redundant communication systems
- GPS tracking platform (real-time)
- Panic alarm monitoring & response
- Defined escalation matrix

0.2 Personnel Vetting & Training

All personnel involved in TAPA TSR shipments must undergo rigorous pre-employment screening and role-specific security training. Unvetted or untrained individuals must never have access to high-value cargo operations at any tier.



Driver Vetting & Training

- Background & criminal record checks
- Employment history verification
- TAPA TSR security awareness training
- Emergency procedures & panic button use
- No-stop protocol briefing



Control Tower Staff

- Real-time route monitoring
- Incident escalation procedures
- Deviation analysis & response
- Geofence management
- 24/7 shift coverage qualification

0.3 Secure Fleet Preparation

Vehicles assigned to TAPA TSR 1/2 shipments must meet stringent technical security specifications. TSR Level 1 imposes the most demanding hardware requirements, including dual GPS, remote immobiliser, and CCTV. All equipment must be tested and verified before each deployment.

Tracking & Comms

- GPS tracking – tamper-proof
- Dual GPS (TSR1 mandatory)
- Panic button – tested

Access & Locking

- Electronic + mechanical locking
- Door sensors fitted
- Sealed cargo compartment
- No external cargo access

Active Security

- Alarm system – operational
- Remote immobiliser (TSR1)
- CCTV – recommended TSR1

Maintenance

- Maintenance logs current
- Trailer structural integrity
- Pre-deployment inspection

1.1 Booking & Pre-Alert

The shipment lifecycle formally begins when the shipper or freight forwarder submits a booking request with complete cargo details. At this point, TAPA TSR classification is applied, determining the level of security measures required for the entire transport chain.

Shipper / Forwarder Submission

- Full cargo description and quantity
- Declared value and risk category
- Pickup and delivery windows
- Special handling instructions
- DG declarations (if applicable)

TAPA Security Classification

- **TSR 1** – Highest risk, full hardware suite mandatory, dual driver, dual GPS, remote immobiliser
- **TSR 2** – High risk, enhanced tracking, security-approved parking, strict protocols



1.2 Risk Assessment


Every TAPA TSR shipment requires a structured Route Risk Assessment (RRA) before confirmation. This process evaluates the full threat landscape and determines the precise security resources required. No shipment proceeds without documented risk sign-off.

Evaluation Criteria

- Cargo value & theft attractiveness
- Route risk & country risk rating
- Known crime hotspots along route
- Weather conditions & seasonal risks
- Political events & border delay risk

Outputs & Determinations

- Escort requirement (yes/no)
- Dual-driver requirement
- Secure parking specifications
- No-stop zone designations
- Contingency route definition

 **Controls:** TAPA Route Risk Assessment (RRA) · Customer-specific security protocols · Insurance requirements validation

2.1 Vehicle Security Check

A comprehensive pre-departure vehicle security inspection is mandatory before every TAPA TSR movement. No vehicle departs without documented verification of all security systems and the application of tamper-evident sealing. All findings are logged and confirmed with the control tower.

Systems Inspection

- GPS & dual GPS functionality (TSR1)
- Door sensors & alarm system
- Immobiliser & panic button test
- CCTV (where installed)
- All locking mechanisms
- Trailer structural integrity

Sealing & Documentation

- Apply high-security seals
- Apply electronic seals
- Tamper-evident tape on access points
- Record all seal numbers
- Complete pre-trip inspection log
- Control tower verification confirmed



2.2 Driver Protocols

Driver verification and pre-departure briefing is a critical security gate. Every driver must be positively identified, confirmed fit for duty, and fully briefed on route-specific security requirements before the vehicle is released. For TSR1 shipments, dual-driver presence is mandatory without exception.

1 Identity & Fitness Verification

Confirm driver identity against certification records. Assess fatigue status. Breathalyser test where required. Confirm dual-driver presence for all TSR1 movements.

2 Security Briefing

Brief on approved route, no-stop zones, secure parking locations, emergency procedures, communication protocols, and panic button activation procedures.

3 Documentation Review

Review driver logbook for hours compliance. Authenticate driver credentials. Confirm control tower contact details are current and accessible.

2.3 Route Planning & Geofencing

Precise route configuration is a foundational control in the TAPA TSR framework. The approved route – including all primary, secondary, and emergency variants – must be uploaded to both the GPS system and the control tower prior to departure. Geofences define the operational boundaries that trigger automated alerts.

Route Construction

- Primary route – standard approved path
- Secondary route – pre-cleared alternative
- Emergency route – rapid deviation option
- Secure stop locations identified
- Border crossing procedures documented

Geofence & System Upload

- Geofences defined for all zones
- Checkpoints programmed into GPS
- No-stop zones coded as restricted
- Route uploaded to GPS and control tower
- ETA calculated & route approved
- Geofences activated pre-departure

3.1 Loading at Shipper / GHA

Physical loading of high-value cargo must take place in a controlled, CCTV-covered area with dual-person verification at every step. Cargo condition is confirmed, documentation is completed, and tamper-evident sealing is applied before the vehicle is released for departure.

01

Cargo Verification

Confirm condition, packaging integrity, correct labelling, and DG compliance documentation where applicable.

02

Controlled Loading

Load cargo in CCTV-covered secure area. Dual-person verification of all items loaded. No unauthorized personnel present.

03

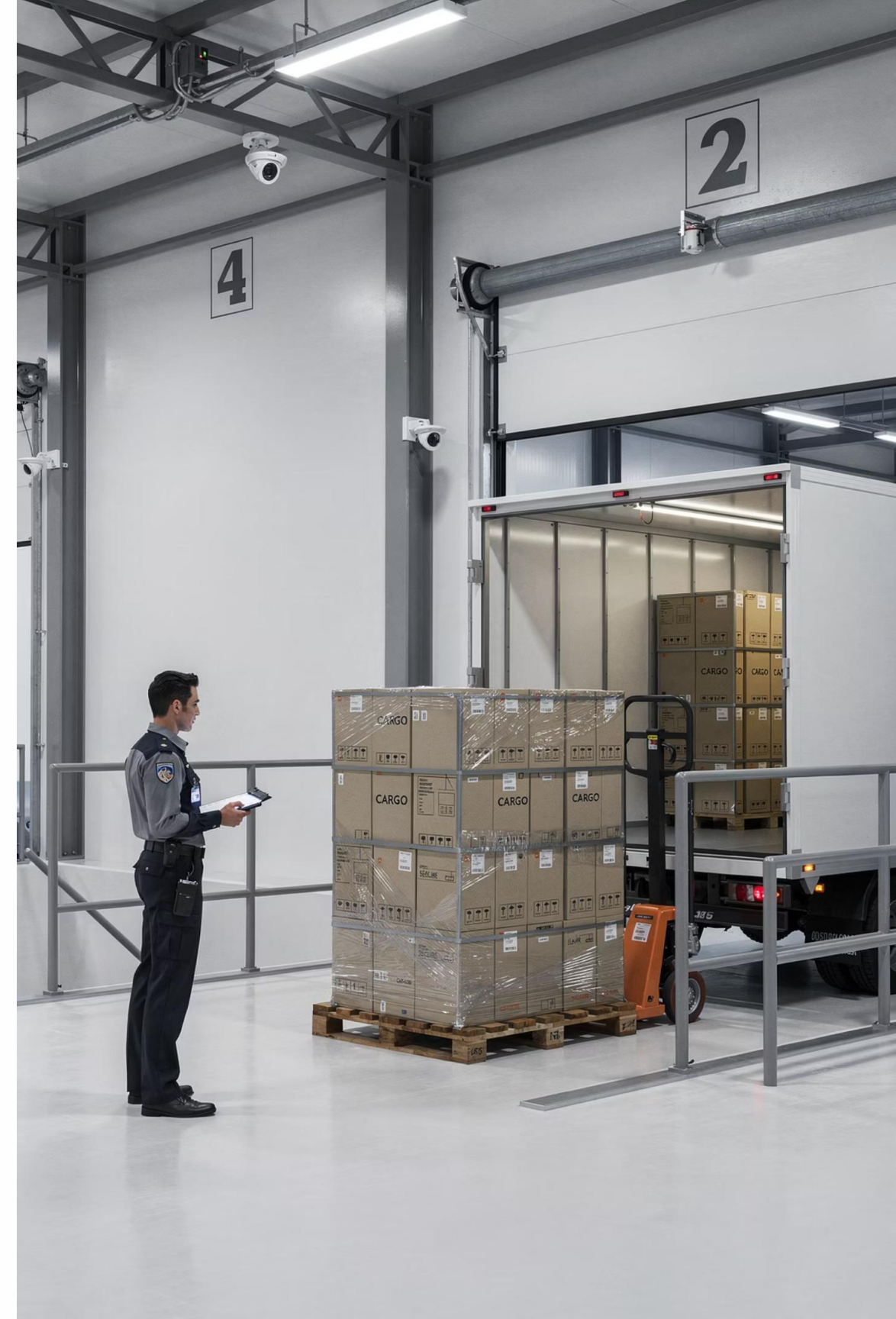
Sealing & Securing

Apply high-security and electronic seals. Engage all locking mechanisms. Record all seal numbers with photos.

04

Documentation

Complete chain-of-custody documents. Record seal numbers. Capture photo documentation of sealed vehicle.



3.2 Secure Handover to Driver

The formal handover from shipper to driver represents a critical transfer of custodial responsibility. All transport documentation is exchanged, security compliance forms are signed, and the control tower is notified the moment the vehicle departs the loading facility.

Documents Handed to Driver

- Air Waybill (AWB) or CMR
- Written security instructions
- Complete seal reference list
- Full cargo manifest

Driver Acknowledgement

- Signs handover log (dual signature required)
- Signs security compliance form
- Confirms all seals verified
- Control tower notified of departure – timestamp recorded

4.1 Departure & Initial Check

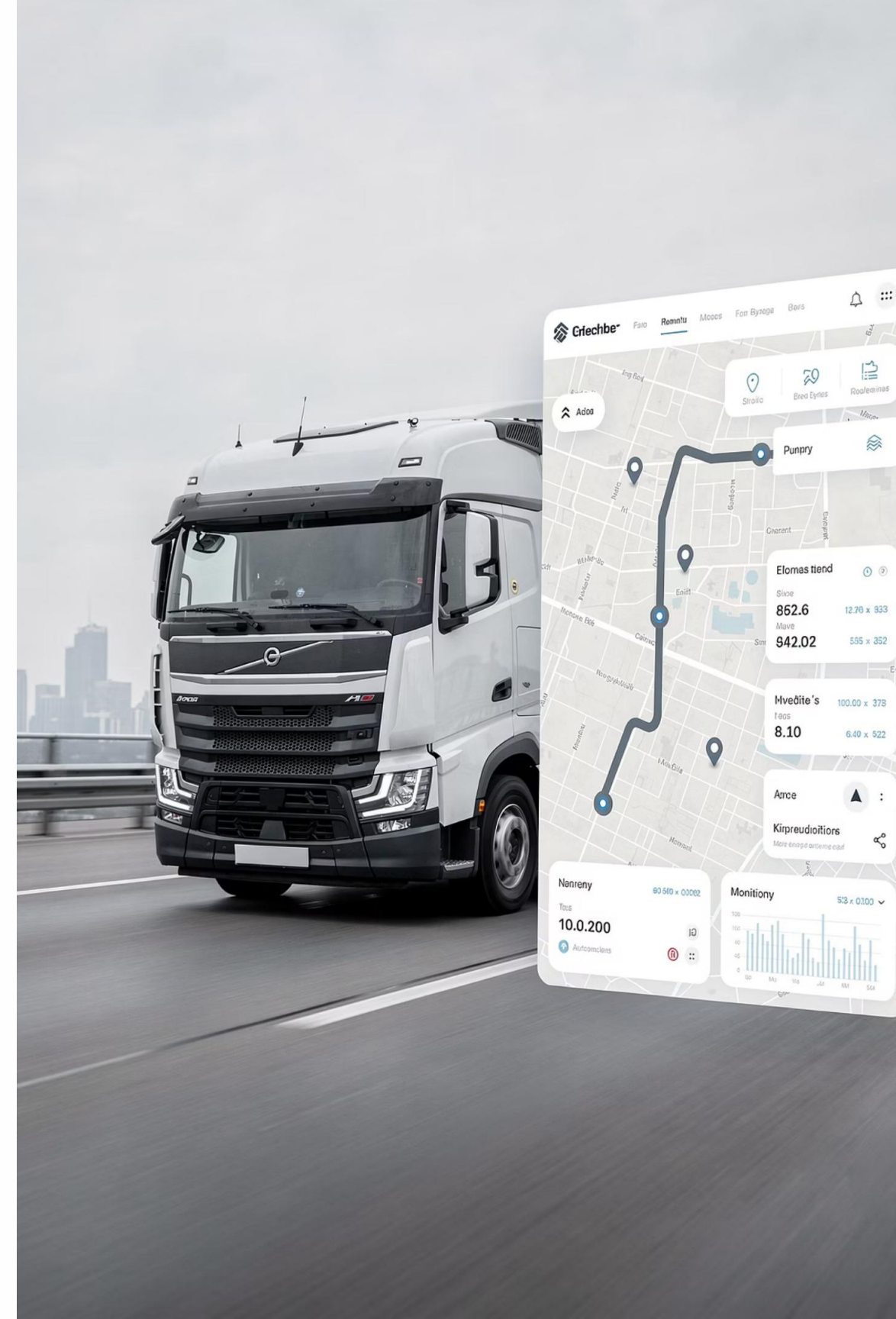
The moment the vehicle departs, the control tower assumes active operational responsibility. An immediate systems check confirms all security technologies are live and functioning, and the driver performs a final physical check before entering the road network.

Control Tower Confirms

- GPS signal confirmed online
- Approved route loaded in system
- All geofences activated
- Panic button confirmed functional
- Communication channel open

Driver Confirms

- All cargo doors locked and secured
- All seals visually intact
- No unauthorised persons in vicinity
- Route briefing understood
- Emergency contacts confirmed



4.2 Real-Time Monitoring (Control Tower)

The control tower maintains uninterrupted oversight for the full duration of every TAPA TSR shipment. Automated alert systems are supplemented by trained analysts who have the authority to intervene, escalate, or activate emergency protocols at any time. This 24/7 operational posture is non-negotiable.



Position & Route

Continuous GPS position tracking, speed monitoring, and route adherence analysis. Automated alerts on geofence breaches or course deviations.



Alerts & Intervention

Panic button alerts, communication status checks, and driver behaviour monitoring. Full manual intervention capability at all times.



Cargo Integrity

Door opening sensors monitored in real time. Any unauthorised door event triggers immediate alert escalation to control tower analyst.



Condition Monitoring

Temperature monitoring for pharmaceutical and sensitive cargo. Excursion alerts routed to both control tower and shipper in real time.

4.3 En-Route Driver Protocols

Driver discipline in transit is a primary security control. The TAPA TSR framework is explicit: drivers must adhere strictly to approved routes, maintain communication discipline, and resist any pressure to deviate. For TSR1 shipments, dual-driver rotation ensures sustained alertness across long-haul routes.

Prohibited Actions

- No unauthorised stops – zero tolerance
- No deviation from approved route
- No cargo door opening in transit
- No interaction with unknown persons

Mandatory Actions

- Check-in at every geofence & checkpoint
- Report at all border crossings
- Dual-driver rotation – TSR1 mandatory
- Panic button readiness maintained
- Communication logs maintained

4.4 Secure Stops (If Permitted)

Rest stops for TAPA TSR shipments are only authorised at TAPA-approved secure parking facilities. No stop may be taken without prior control tower approval. The vehicle must not be left unattended, cargo doors must remain locked, and time on site must not exceed the authorised limit.

Approved Facility Requirements

- TAPA-approved secure parking designation
- CCTV coverage of all parking areas
- Controlled access – barrier or guard
- Adequate lighting throughout
- Active security patrols on site

Stop Procedure

- Driver requests stop – control tower approves
- Driver parks in designated secure zone
- Doors remain locked – no cargo access
- GPS position verified by control tower
- Time limit enforced – departure confirmed



4.5 Incident & Emergency Procedures

The TAPA TSR framework requires pre-defined, rehearsed responses to every credible in-transit threat scenario. Response times are measured. Escalation must be immediate and documented. The control tower retains authority to activate the remote immobiliser for TSR1 vehicles at any point.

Incident Triggers

- Route deviation or geofence breach
- Unauthorised door opening
- Panic button activation
- GPS signal loss
- Attempted theft or vehicle breakdown

Control Tower Response

- Immediate driver call – confirm status
- Activate immobiliser if threat confirmed (TSR1)
- Alert police & airline / shipper
- Activate contingency route
- Dispatch security escort if required

 **Documentation Required:** Incident report · GPS event logs · Full communication logs – all timestamped and retained

5.1 Gate Arrival at Airport / GHA

On arrival at the destination airport or Ground Handling Agent (GHA) facility, the vehicle undergoes a formal security gate check before any access is granted. This access control function is the first physical security gate at destination and must not be bypassed under any circumstances.

1

Driver ID Check

Identity confirmed against booking records and transport documentation before gate access granted.

2

Vehicle Inspection

External vehicle inspection performed. Vehicle condition and licence plate cross-checked against booking reference.

3

Seal Verification

All seal numbers checked against documented seal list. Any discrepancy triggers immediate escalation – no unloading proceeds.

4

Access Authorisation

Airside permit validated if ramp access required. Access control logged. Vehicle escorted to unloading bay.

5.2 Unloading at GHA

Unloading is conducted with the same dual-person verification and chain-of-custody rigour applied at loading. Seal breakage is performed under CCTV. Every item is scanned into the Cargo Management System (CMS) before onward movement, and any damage or temperature excursion is recorded immediately.

01

Break Seal Under CCTV

Seal broken in designated CCTV-covered area. Seal number and condition recorded. Dual-person witness mandatory.

03

CMS Scan & Condition Check

All pieces scanned into CMS. Damage inspection and temperature check performed. DG segregation applied where required.

02

Dual-Person Unloading

Cargo unloaded by two authorised personnel. Each item cross-checked against manifest during unloading process.

04

Onward Movement

Cargo moved to breakdown, transit, or import warehouse area under documented chain-of-custody transfer.

6.1 Secure Handover to Consignee (RFS Final-Mile)

For Road Feeder Service (RFS) shipments requiring final-mile delivery to the consignee, the TAPA TSR security chain must remain unbroken until the moment of physical handover. Identity verification, seal integrity confirmation, and documented proof of delivery are all mandatory before custodial transfer is complete.

Identity Verification

Consignee identity confirmed against delivery authorisation documentation. Authorised receiver must be present – no handover to unverified parties.

Seal Integrity Check

All seals verified intact against seal list prior to handover. Any discrepancy must be escalated before cargo is transferred.

Proof of Delivery (POD)

Obtain consignee signature, record precise timestamp, and capture photographic POD. Chain-of-custody formally closed on validated POD receipt.

7.1 Billing & Cost Reconciliation

Post-shipment billing for TAPA TSR movements must accurately capture all security-specific cost components. These surcharges reflect the genuine operational cost of maintaining certified secure transport and must be documented transparently for both client invoicing and internal cost allocation.

1

TSR Security Surcharge

Core TAPA TSR certification levy applied per shipment, reflecting the cost of certified equipment, personnel, and monitoring.

2

Escort Fees

Where a security escort was deployed – whether police, private, or dual vehicle – escort costs are itemised separately.

3

Secure Parking Fees

Charges for use of TAPA-approved secure parking facilities during authorised en-route stops.

4

RFS Linehaul & Handling

Road feeder service linehaul rate plus all GHA handling charges for unloading, scanning, and warehousing at destination.

7.2 KPI Reporting

Structured KPI reporting enables continuous operational improvement and provides clients with transparent performance data. TAPA TSR compliance requires that security performance metrics are tracked, trended, and made available for customer and regulatory review.

OTP

On-Time Pickup

Percentage of collections executed within the agreed pickup window

OTD

On-Time Delivery

Delivery performance against committed delivery windows

RD%

Route Deviations

Frequency and severity of deviations from approved routes

SI#

Security Incidents

Total security events logged per reporting period

CT

Control Tower Response

Average response time from alert trigger to analyst action

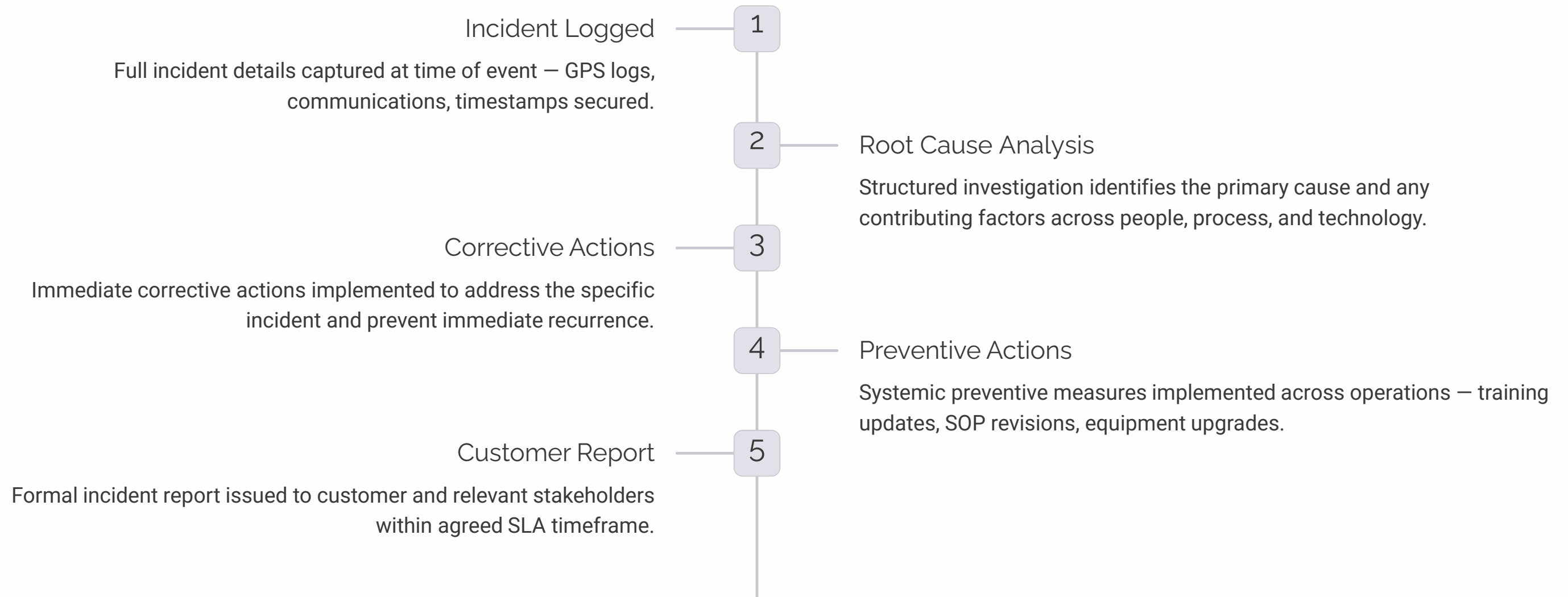
DC%

Driver Compliance

Protocol adherence rate across check-ins, stops, and communication

7.3 Incident Investigation

Every security incident – regardless of severity – requires a formal investigation. Root cause analysis drives corrective and preventive actions, closing the security loop and preventing recurrence. Customer reporting must be completed within agreed SLA timelines and in sufficient detail to support insurance or regulatory requirements.



7.4 Documentation Archiving

Complete and tamper-proof documentation archiving is a cornerstone of TAPA TSR compliance. All records must be retained for the minimum period required by the TAPA standard, customer contract, and applicable regulations – and must be available for audit at short notice. Digital records must be backed up and access-controlled.

Tracking & Event Logs


- Full GPS journey logs
- Geofence breach records
- Control tower communication logs

Security & Seal Records

- Seal application & break records
- Chain-of-custody documentation
- Incident reports & investigations

Personnel & Operational Logs

- Driver logs & compliance records
- Pre-trip inspection forms
- Route plans & RRA documents

 **Retention:** All documentation must be retained in line with TAPA TSR audit requirements, customer contractual obligations, and applicable data protection and transport regulations.