AmpleTrails

OEM: COST OPTIMISATION, FUTURE READY SOLUATIONS

LOGISTICS PROCESS

Enhancement

2.0

"Driving Cost Optimization, Speed, and Visibility Across Outbound Logistics"

PRESENTED BY

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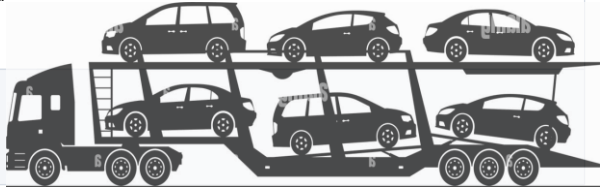
IT Automation: Transport Management System

#	Current Process	Expected Outcome	Remarks
1	Tracking of Provisions is done manually.	System Based report of all LR/Shipping bill for which Invoice is not booked/posted in SAP so that there is no lapse in provisioning	*This shall also support for avoiding Compliance Issues related to delay in Provisioning/TDS deductions*
2	Share of Business between LSP (transport partners), is also tracked manually	Report based monitoring & tracking of SOB as per agreement terms can be done.	
3	Selection of LSP partner for any specific route is currently done basis availability of Trailor from LSP Partner on particular day	Selection of LSP partner for any specific route should be based on SOB % defined for the month with selection of transportation model (road/Rail)	
4	Estimated Tracking of Actual Per Car cost for all Carlines. Currently Avg cost is calculated based on estimated cost & trailor load	Basis of data of VIN numbers in all Shipments, system-based report for Carline wise Freight can be calculated	
5	Operational Benefit: Currently Full load formation for remote locations is managed manually.	System based suggestion for clubbing of Partial load of multiple locations in order to ensure full load is utilized.	



IT Automation: Transport Management System

CURRENT SCENARIO – WITHOUT TM MODULE (VEHICLE SALES)

- Billing done in SAP — assigns vehicle IDs (Material code VSN + VIN) to dealer via SAP + DMS
- PO with MSP yearly rate contract; rates maintained per destination
- Routes defined with fixed rates based on transit time
- Club load / Full load / Part load concepts exist, but rates follow route not delivery locations
- Rate fixed by truck type (TK4 / TK6 – 4 or 6 vehicles per truck)
- Route-wise rates for road (6 transporters) & rail rack (2 transporters)
- Rail rack: per-car rate up to zone, then road to dealer
- Priority-based delivery option — rate fixed by route & truck
- Transit damage, deliveries, vendor performance tracked in Excel
- Graphical & calculative MIS reports also in Excel; SAP billing uses Excel inputs

EXPECTATIONS FROM TM MODULE – VEHICLE SALES

- Load formation & TPT balance monitoring
- Load Completion / Planning / Formation sheets
- Dispatch with Full, Club & Part load support
- Transportation balance, ageing & priority monitoring
- LSP allocation – auto-assign transporter & route
- Plant shipment dispatch with documentation
- Shipment-wise cost against contracted rate card
- Bill verification & payment workflow
- Approval flow for route/transporter variation
- Auto-calculation of transporter performance

KEY DEVELOPMENTS REQUIRED: Load Formation Engine · Fleet Operations & Truck Allocation · Freight Provision & Payout · Centralized Tracking · Final Commercial

SECTION

01

Logistics Process: Load Formation Engine

Detailed SOW — an intelligent engine for cost-optimized, delay-free load creation.

IT Automation: Load Formation Engine

Current System

- Wholesale dispatch done VIN-by-VIN, not full-truck optimized
- Loads manually created by Logistics team from FGY open stock & fresh billing (Full / Club / Mix)
- No evaluation of cost impact, route efficiency, or consolidation opportunity

Proposed Solution — LFE

- Deploy a Load Formation Engine using master data, live demand & freight cost logic
- Automatically creates cost-optimized & delay-free loads, improving dispatch efficiency
- Acts as a decision engine, not just a load creation tool

Key Challenges

- Highly time-consuming, work-intensive manual process
- Monotonous task — workforce fatigue & errors
- High individual dependency → inconsistent decisions
- No systematic, data-driven approach
- No visibility of cost impact during club / mix loads
- No trigger to Billing Team for timely dispatches
- Limited ability to maximize full truck / train utilization

Phase 1 Inputs & Desired Output

- Inputs: Fleet Master · City / Route Master · Load Mix Master · Freight Cost Master
- Historical dispatch & loading patterns, vehicle availability, multi-plant/warehouse selection
- Output: Best possible full-truck loads, automatically
- Optimal club loads with minimal cost impact
- Priority-based VIN allocation: ageing · model · trim · state / zone
- Email notifications to Billing Team to accelerate dispatch
- Maximize train utilization via auto-flag hold logic

Load Simulation Sample

Illustrative output from the Load Formation Engine — VIN-level load suggestions with route, model mix, and utilization.

LOAD #	TRUCK	ROUTE	VINs ALLOCATED	UTILIZATION
LD-2101	TK6	Ahmedabad → Jaipur	06	100%

#	VIN	Model	Destination	Zone	Ageing (Days)	Trim	Priority
1	**MA3XXXXXX001**	Carline A	Jaipur	North	12	LXi	High
2	**MA3XXXXXX002**	Carline A	Jaipur	North	10	VXi	High
3	**MA3XXXXXX003**	Carline B	Jaipur	North	08	ZXi	Medium
4	**MA3XXXXXX004**	Carline B	Jaipur	North	07	VXi	Medium
5	**MA3XXXXXX005**	Carline C	Jaipur	North	05	LXi	Low
6	**MA3XXXXXX006**	Carline C	Jaipur	North	04	LXi	Low

Sample data shown for illustration. Engine generates priority-ranked VINs for optimal truck / train loads in real time.

SECTION

02

Logistics Process: Fleet Operations & Truck Allocation

Automated, data-driven, and transparent load allocation across LSP partners.

Logistics Process: Fleet Operations & Truck Allocation

Current Process

- Annual business plans rolled out to LSP partners on annual wholesale plan
- Monthly plans released from adjusted target file; broken into weekly / daily using historical data
- LSPs accept monthly plan & confirm day-wise fleet availability — operationally functional but heavily manual

Key Challenges & Visibility Gaps

- 100% manual load allocation — low efficiency, high dependency on individuals
- Inconsistent allocation decisions, no data-driven approach
- No visibility of rejected loads, penalties, or business impact
- Week 1 distribution imbalance — operational strain
- No centralized view of LSP refusals, loading delays, missed / partial loads

Proposed Solution – Load Allocation Engine (LAE)

Supports current business, continuously revises future month plans based on past performance, and enables automated, data-driven, transparent allocation — a single source of truth across planning, allocation, execution & review.

CORE FEATURES · LOAD ALLOCATION ENGINE

1. **System-Generated SOB** Auto SOB per LSP by contribution, past performance & adherence — triggered to LSPs via system
2. **Daily Truck Confirmation** LSPs submit daily truck availability via Mobile App / WhatsApp (4–6 configurable windows / day)
3. **Auto Truck & Load Allocation** Allocation on approved SOB + fleet availability · 30–45 min SLA · force allocation available
4. **Centralized Loading Bay Screen** Single dashboard: allocated transporter, bay, planned time, start/end, gate-out real-time updates
5. **Post-Trip Completion** LSP enters LR via App / WhatsApp · system auto-generates Road Permit · hourly exec report
6. **Integration & Exceptions** E2E with planning, dispatch, gate mgmt · manual override for exemptions · full data capture
7. **Final SOB Control** Approval-based with editable rights & admin control

SECTION

04

Logistics Process: Freight Provision & Payout Process Automation

End-to-end automated freight payment system — accuracy, transparency, and faster payouts.

IT Automation: LSP Freight Billing Process Automation

Current System – Freight Provision & Payout

Today, 100% freight provisioning and payments are prepared and validated manually by the Plant FGY team. LSPs generate invoices in their own systems and submit hard / soft copies to FGY — the entire process depends on manual validation and follow-ups.

KEY CHALLENGES

- Payment Delays — manual validation drives long TATs
- Irregular Bill Submission — misnaming, mismatches, reconciliation pain
- Duplicate-payment risk — no system checks on invoice / VIN / trip
- Data integrity & audit observations; no LSP visibility → frequent escalations

Proposed — Automated & Centralized Freight Payout

Implement a centralized, end-to-end automated freight payment system with controlled access for LSPs, FGY, and Approvers — ensuring accuracy, transparency, control, and faster payments.

- ACCURACY
- TRANSPARENCY
- CONTROL
- SPEED

PROCESS FLOW

System Owner & Freight Payable Record → Provisional Freight from Wholesale → Invoice Generation by LSP → Invoice Lock & Submission → FGY Acknowledge → Bill Validation → HOD Final Approval → SAP / OEM Integration → Payment Processing → Reports, Dashboards & Alerts

Role-based access · Audit trail · SLA-driven alerts · SAP payment cycle aligned

Core Features of the Centralized Freight System

3.1

Freight Record Creation

Auto payable records from Gate-Out + Approved Freight Master · e-POD & Retail/Delivery API-integrated

3.2

Provisional Freight Creation

Wholesale system generates provisional figures, auto-linked to final records for reconciliation

3.3

Invoice Generation by LSP

LSPs log in, select eligible records, generate invoice; records locked & moved to 'Bill Submitted'

3.4

Invoice Submission & Summary

Inv. No, date, VIN-wise summary · signed invoice + supporting docs by 7th of each month

3.5

Acknowledgement by FGY

FGY acknowledges in system · auto email notification to LSP as proof

3.6

Bill Validation Workflow

Approve / Return (with reason) / Reject — rejected cases reopen with full audit trail

3.7

Final Approval

HOD approves · auto email to LSP · bill moves to 'Approved for Payment'

3.8

SAP Integration & Payment

Payment data generated / API-pushed to SAP OEM · execution per SAP payment cycle

3.9

Payment Confirmation

UTR / Doc No., payment date auto-update on LSP Bill Status Dashboard & reports

3.10

Debit Note Management

LSP initiates, linked to invoice / VIN · FGY reviews · HOD approves · reflects in net payable

3.11

Reports & Dashboards

Pendency · payment · variance · approved/rejected · debit notes · role-based access

3.12

Exception & Alert Mgmt

SLA-based automated delay alerts · escalation matrix configurable

ADDITIONAL CONTROLS: Duplicate Invoice Prevention · GST & Compliance Validation · Tolerance Rules · Audit Trail · TAT & SLA Measurement

SECTION

03

Logistics Process: Centralized Tracking System

Real-time visibility, proactive alerts, and AI-based fleet forecasting.

Logistics Process: Centralized Tracking System

Current System – Vehicle Tracking

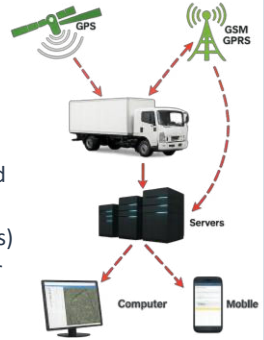
Today, 100% of vehicle tracking is manual — LSPs share tracking data manually, FGY consolidates, and updates go out via manual reports.

- Highly time-consuming, work-intensive process
- Increased manpower cost; heavy individual & follow-up dependency
- Limited reporting — no advanced views, alerts, or analytics
- Delayed visibility for Sales and other stakeholders

Proposed – Automation of Tracking System

Implement a centralized, automated vehicle tracking system integrated with LSP platforms — real-time visibility, proactive alerts & advanced reporting.

- API-based integration with single centralized dashboard
- Distance Master optimization (post Q2)
- Automated email triggers (1–2 shipment status updates)
- Advanced search: VIN · Truck · Date · Load · Transporter
- Delay alerts auto-shared with stakeholders



PROJECT PHASING

PHASE 1

Real-Time Visibility & ETA

- Sales Team: live vehicle tracking on centralized screen
- Check estimated arrival date (ETA) for each shipment
- Reduction in manual follow-ups and reporting effort
- Faster decision-making for Sales & Operations

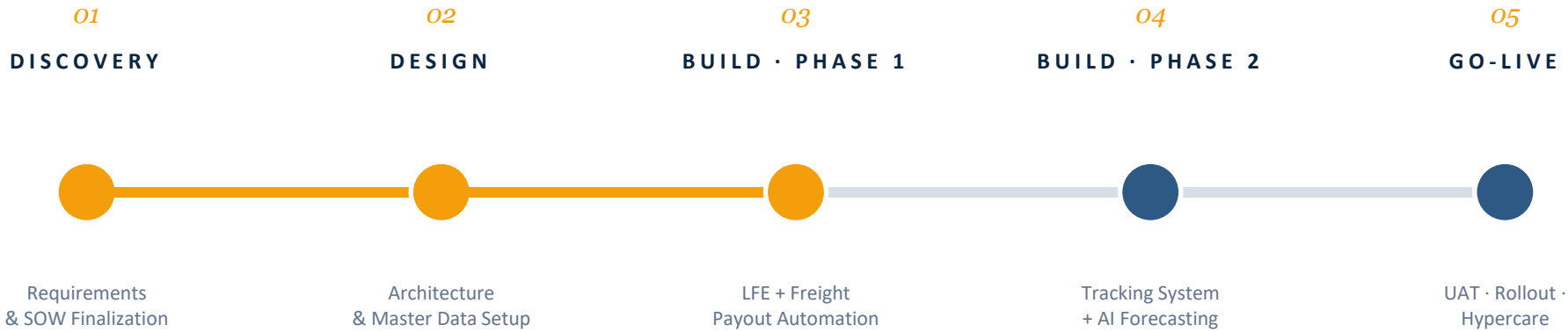
PHASE 2

AI-Based Fleet Availability Forecasting

- AI/ML tracks available fleet in Gujarat
- Predicts future vehicle availability using historical + live GPS data
- Improved logistics planning & load allocation
- Better utilization of LSP fleet capacity

Logistics Process: Timelines

A phased rollout across discovery, design, build and go-live — modular delivery keeps risk low and benefits compounding.



Detailed sprint plan, dependencies and owner assignments to be finalized with IT & LSP partners.

THANK YOU

Let's drive the next mile

Questions, feedback and collaboration welcome.

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