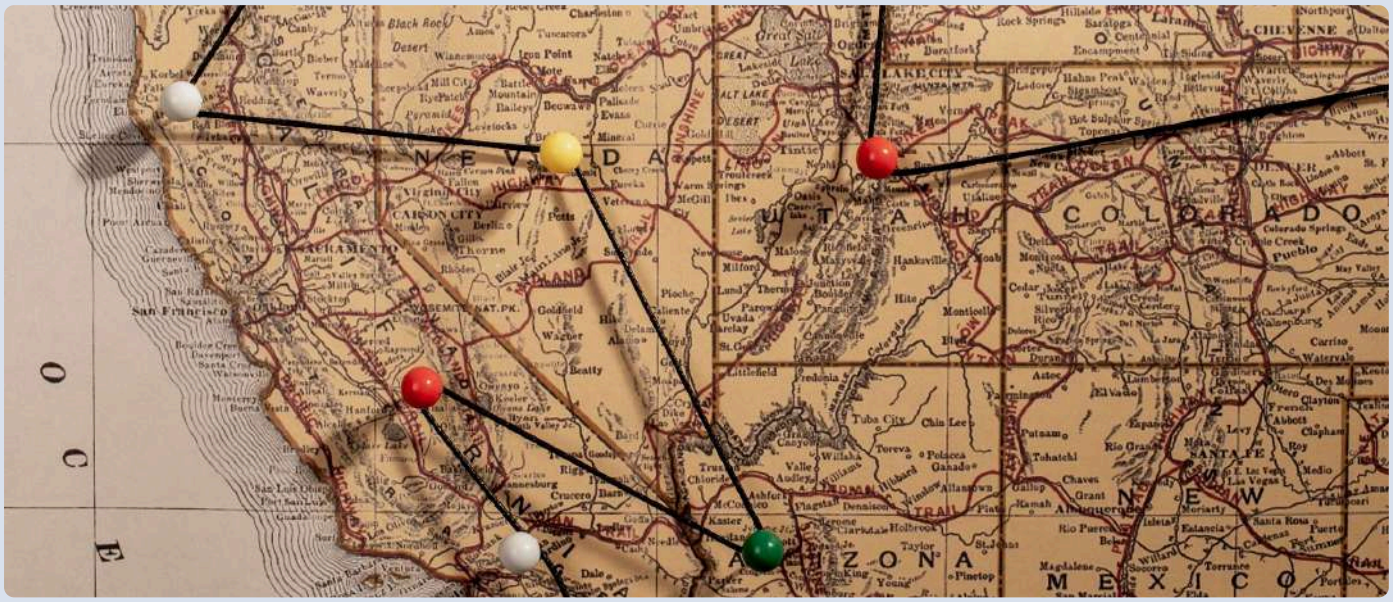
lemnisk™

CDP for Travel Aggregators: Building a Unified Traveller Profile Across Flights, Hotels & Experiences

A guide to solving fragmented traveller data & powering personalization at scale

The Fragmentation Problem in Travel

Travel aggregators sit at the centre of a uniquely complex data problem. A single traveller might search for flights on the app, compare hotels on the website, book an experience through a partner integration, and contact support over WhatsApp all within the same trip planning cycle.



Flight Search

Data sits in one engine, isolated from all other touchpoints.

Hotel Booking

Inventory and booking data lives in a separate system entirely.

Experiences

Third-party APIs with their own tracking, disconnected from core data.

Support

Helpdesk tools entirely disconnected from marketing systems.

The result is not one traveller profile it is four or five fragments of the same person, none of which talk to each other. Marketing teams end up sending a hotel offer to someone who already booked a room, or a generic re-engagement email to a high-intent traveller who abandoned a flight search three times in one week. For travel aggregators, this fragmentation directly limits revenue: cross-sell and upsell opportunities are missed, personalisation becomes guesswork, and the traveller experience feels disjointed even when every individual system is working exactly as designed.

Why Traditional Data Systems Fall Short

Most travel aggregators rely on a patchwork of point solutions: a booking engine, an email service provider, a CRM, and increasingly, connected experience or ancillary APIs. Each was built to solve one problem well not to unify data across the traveller journey.

Siloed Identifiers

A traveller might use a different email for flights versus hotels, or browse anonymously before logging in. Without identity resolution, these appear as separate people entirely.

Batch-Based Updates

Many CRM and email systems refresh data on a delay hours or even a full day. In travel, intent moves fast. A traveller comparing flights right now needs a response right now.

Vertical-Specific Data Models

Flight, hotel, and experience data each have their own structure, price logic, and inventory rules. Systems built for one vertical often cannot ingest or normalise the others cleanly.

No Shared Source of Truth

When marketing, product, and support all reference different versions of the same customer, campaigns get built on incomplete assumptions and measurement becomes unreliable.

These aren't failures of individual tools, they are the natural outcome of stitching together systems that were never designed to operate on one connected view of the traveller.

What a Unified Traveller Profile Looks Like

A unified traveller profile consolidates every interaction across flights, hotels, experiences, and support into a single, continuously updated record.

Critically, it updates in **real time** a flight search to Bali should trigger a hotel recommendation within the same session, not after an overnight refresh.

A composable CDP sits across the booking engine, CRM, and experience APIs, resolving identity and unifying data without replacing existing systems.

Profile Data Points

- Search and browse behaviour across flights, hotels, and experiences
- Booking history, cancellations, and modifications
- Price sensitivity and fare alert triggers
- Loyalty tier and points balance
- Preferred routes, destinations, and travel dates
- Ancillary purchase patterns
- Support interactions and resolution history
- Channel and device preferences

Identity Resolution Across Flights, Hotels, and Experiences

Identity resolution is the foundation of a unified profile. Without it, cross-vertical personalisation is not achievable the data exists, but the system cannot connect it to the same person.

Anonymous-to-Known Matching

Browsing history from anonymous sessions is stitched to the known profile once identity is established, preserving intent signals.

Cross-Device Behaviour

Deterministic matching combined with probabilistic signals unifies a mobile search and a desktop booking into one continuous journey.

Cross-Vertical Linking

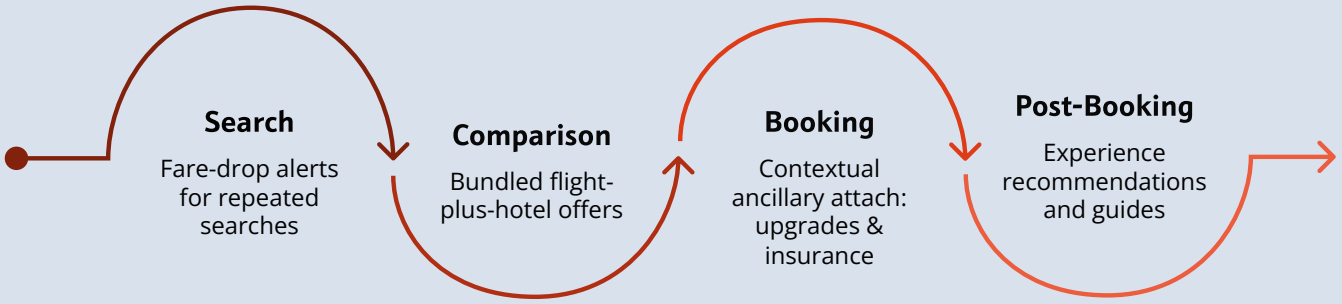
A single traveller ID persists across flight searches, hotel bookings, and experience purchases even across different backend systems.

Household and Group Bookings

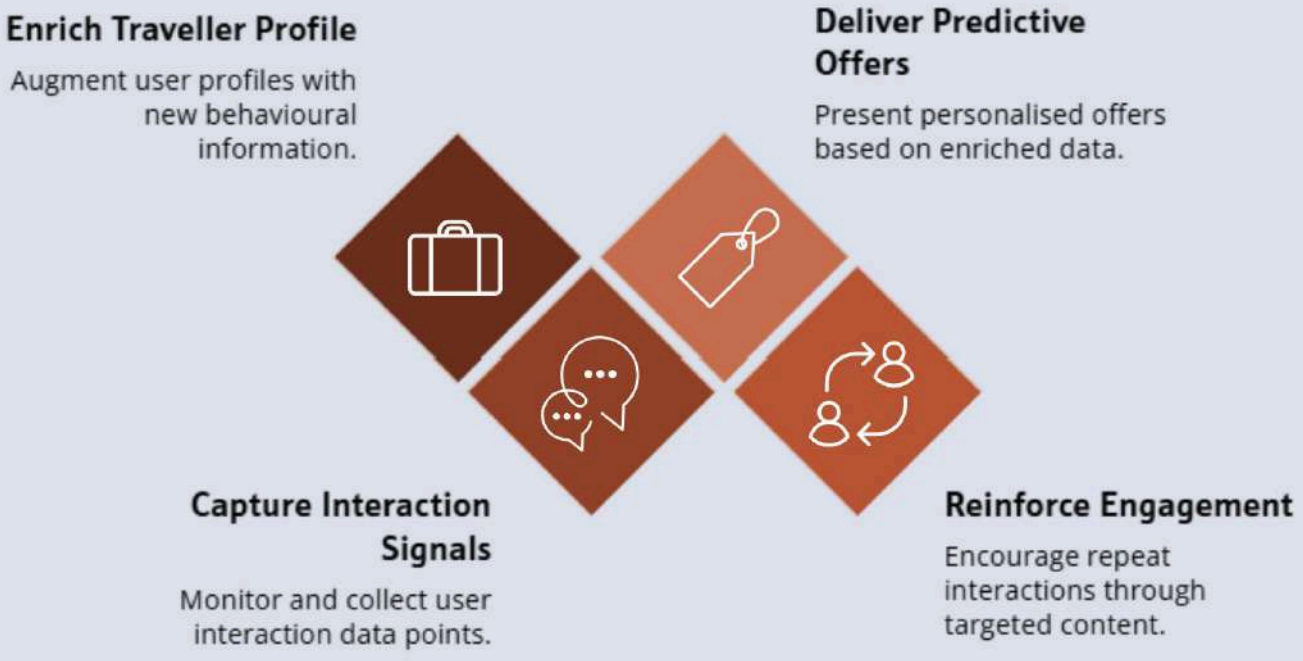
A mature approach distinguishes between the booker and the traveller without losing the connection between them.

Real-Time Personalisation Across the Booking Journey

Once a unified profile exists, real-time personalisation becomes possible at each stage of the booking journey functioning not as a separate campaign layer, but as a direct extension of traveller behaviour. The distinction matters: campaign-led personalisation operates on segments and schedules, while profile-driven personalisation operates on the individual and the moment. The former is broadcast; the latter is a response. For OTAs competing on experience rather than price alone, this distinction is where loyalty is built or lost.



The common thread across all four stages is timing. Personalisation that arrives a day late is simply marketing. Personalisation that arrives in the moment anchored in a live, unified profile is what drives incremental revenue. The difference between a contextual offer and a generic one is not creative quality; it is latency and relevance. A system that can resolve identity, read live behavioural signals, and return a personalised output within the same session is structurally different from one operating on batch-processed segments refreshed overnight. The former treats the booking journey as a continuous conversation; the latter treats it as a series of disconnected transactions.



Use Case: Cross-Sell and Upsell at the Right Moment

From Generic Email to Relevant Offer

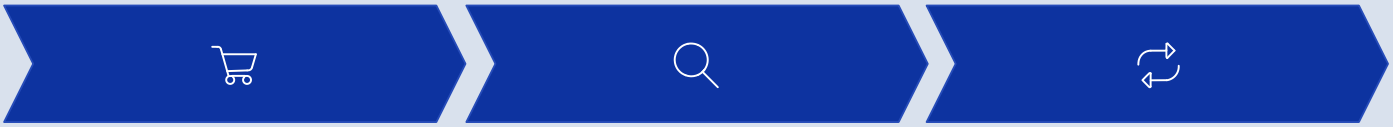
A traveller books a flight to Goa. In a fragmented system, this might trigger a generic post-purchase email days later, if at all. With a unified profile, the same booking immediately triggers connected offers: hotels in the traveller's typical price band, airport transfers, and destination-relevant experiences.

Because the CDP holds loyalty tier, past spend, and preferences in a single profile, offers are **ranked by relevance** a budget traveller sees different options than a frequent premium booker.

Aggregators applying this approach typically see ancillary attach rates improve substantially simply by closing the gap between booking intent and offer relevance.

Use Case: Recovering Abandoned Bookings

Abandonment is one of travel's highest-value recovery opportunities and most commonly mishandled. Fragmented systems treat all abandonment identically: one generic reminder, sent on a fixed delay. A unified CDP enables a more precise response.



Cart-Level Abandonment

Payment drop-off triggers a fast, high-urgency reminder often within the hour before fare or availability changes.

Search-Level Abandonment

Comparison without selection triggers a lower-urgency nudge, with price-drop tracking activated for the searched route.

Repeat Search Abandonment

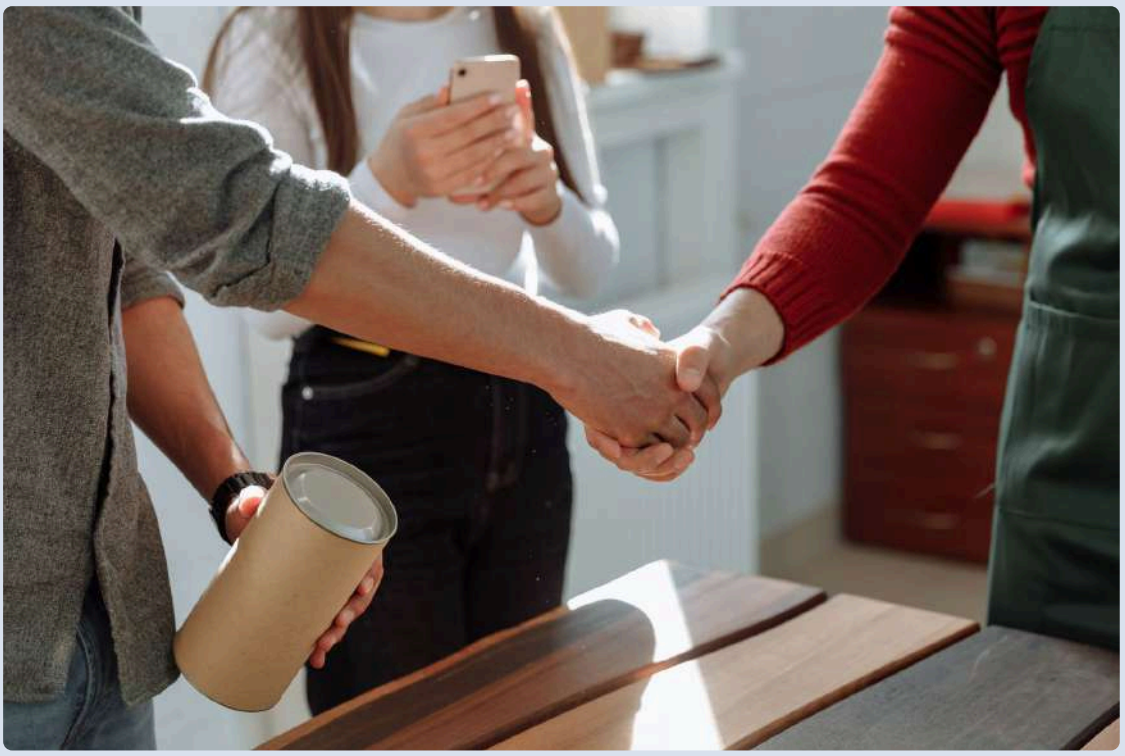
Multiple sessions on the same search signals sustained intent, warranting a tailored offer rather than another generic prompt.

With fare details, traveller history, and channel preference unified, recovery messaging can reference the exact itinerary and reach the traveller through their preferred channel.

Use Case: Loyalty and Repeat Traveller Engagement

The Loyalty Gap

Acquiring a new traveller costs significantly more than retaining an existing one, yet many aggregators treat loyalty and marketing as disconnected functions loyalty points tracked in one system, campaigns run from another, with no shared view of the traveller's full relationship with the brand.



A unified profile changes this by combining loyalty status, points balance, tier progression, and booking history into the same record used for personalisation and campaign targeting.

What Becomes Possible

Tier-Relevant Offers

Rather than generic loyalty emails sent to all members equally, offers reflect actual tier and history.

Tier-Progression Nudges

Proactive messaging when a traveller is close to the next loyalty threshold drives incremental bookings.

Win-Back Campaigns

Triggered by a drop in booking frequency compared to the traveller's own historical pattern not a generic lapsed-user segment.

Recognition Moments

Milestone trip counts or anniversary-of-first-booking messaging grounded in actual data, not guesswork.

Privacy and Consent in a Multi-Vertical Data Model

Unifying data across flights, hotels, experiences, and support raises the stakes on privacy and consent management. A traveller profile that spans this much of a person's life and preferences needs to be built on a compliant, transparent foundation.

Consent by Purpose

A traveller may consent to booking confirmations and price alerts but not to third-party experience marketing. Consent must be tracked at a granular level and respected consistently across every vertical.

Regional Compliance Variation

Travel aggregators operate across multiple geographies, each with different data protection requirements. The architecture must support region-specific consent and retention rules without fragmenting the underlying data model.

Data Minimisation

Using traveller data effectively does not require using all of it visibly. Preference-based personalisation should feel relevant not like surveillance.

Partner Data Consent Trails

When experience or ancillary data comes through third-party APIs, consent provenance must be preserved and auditable not lost in the handoff.

Choosing the Right CDP for Travel Aggregation

Not every CDP is suited to the operational complexity of a travel aggregator. A few evaluation criteria matter more in this industry than in most others.

Real-Time Processing

Travel intent is time-sensitive. A CDP that updates on a batch schedule will consistently miss the window where personalisation is most valuable.

Composability

Travel aggregators run on a mix of booking engines, CRMs, and partner APIs. A composable architecture integrates with existing systems rather than requiring a rip-and-replace of core infrastructure.

Cross-Vertical Data Modelling

The CDP must handle flight, hotel, and experience data natively, with the flexibility to normalise different data structures into one coherent profile.

Built-In Identity Resolution

Anonymous-to-known matching, cross-device stitching, and booker-versus-traveller distinction should be core capabilities not custom-built workarounds.

Governance and Consent Infrastructure

Given the regional and purpose-based consent complexity in travel, this must be a first-class capability not an afterthought.

Lemnisk's composable CDP is built to address each of these requirements directly, with identity resolution, personalised activation, and granular consent management designed for multi-vertical businesses like travel aggregators.

Getting Started: A Practical Roadmap

Building a unified traveller profile does not require a full replacement of existing systems. A phased approach typically works best, allowing aggregators to demonstrate value early while building toward fuller personalisation capabilities.

Phase 1: Audit and Map

Identify every system currently holding traveller data booking engines, CRM, support tools, partner APIs and map what identifiers each one uses.

Phase 2: Establish Identity Resolution

Implement deterministic and probabilistic matching to begin stitching anonymous and known traveller data into single profiles.

Phase 3: Unify the Profile

Connect flight, hotel, experience, and support data into one continuously updated record, accessible in real time.

Phase 4: Activate Incrementally

Start with one or two high-impact use cases such as abandoned booking recovery or cross-sell at booking confirmation before expanding to the full personalisation roadmap.

Phase 5: Govern and Scale

Layer in granular consent management and regional compliance rules as the profile scope expands across markets and verticals.

Conclusion

Travel aggregators operate one of the most fragmented data environments in digital commerce flights, hotels, experiences, and support, each generating signals in isolation. The traveller does not experience their journey as fragmented, but the systems behind it usually do.

A unified traveller profile closes this gap. It turns scattered interactions into one continuously updated view of intent, preference, and history and turns that view into real-time personalisation across every stage of the booking journey.

Higher Ancillary Attach Rates

Contextual offers at the right moment drive measurable uplift in ancillary revenue.

Better Abandonment Recovery

Intent-depth segmentation and real-time triggers recover bookings that generic emails miss.

Genuine Loyalty Engagement

Personalisation that reflects the actual traveller relationship not a generic segment.

The technology to do this exists today, and it does not require dismantling current infrastructure to implement. What it requires is a composable layer that can see across the fragmentation and act on it in real time.

> **Learn how Lemnisk's composable CDP unifies traveller data across flights, hotels, and experiences and activates it across touchpoints.**

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