Pipelines for Price in Hotelbeds Cache API Integration

What are Price Pipelines?

In the Hotelbeds Cache API integration, a price pipeline refers to the structured sequence of processing steps that transform raw hotel rate data (net rates, promotions, policies, fees, taxes, and FX) into the final end-user payable price (E.P.P). This ensures accurate, consistent, and customer-ready prices.

Why Pipelines?

Price pipelines provide a standardized, modular approach to price computation. They make the process easier to maintain, test, and scale while ensuring that every applicable business rule is applied in the correct order.

Typical Steps in a Price Pipeline

1. **Ingest (Data Retrieval)**: Fetch net rates, availability, promotions, policies, fees, taxes, and FX rates. 2. **Normalization & Eligibility**: Deduplicate rate keys, validate sellability (stop-sale, allotment, min/max stay), and determine applicable promotions. 3. **Promotion Engine**: Apply discount rules based on the combinability matrix (exclusive vs. cumulative promotions). 4. **Fees & Taxes Application**: Add mandatory surcharges, city taxes, and child/extra-bed fees. 5. **Currency Conversion & Rounding**: Convert to EUR (or required currencies) and apply rounding rules. 6. **Aggregation**: Select the cheapest sellable option per hotel/date/LOS/occupancy. Retain alternatives for product detail pages (e.g., refundable vs. non-refundable, with/without breakfast). 7. **Output & Storage**: Store results in the cache/index with fields such as E.P.P, board type, cancellation class, badges, and metadata like timestamp and version.

Key Benefits

- **Modularity**: Each component (promotion engine, tax calculation, FX) can be tested or updated independently. - **Reusability**: The same pipeline can serve precompute jobs, delta updates, and live fallback. - **Traceability**: Logs and audits can show exactly how each price was derived. - **Scalability**: Pipelines can be parallelized to handle millions of hotel/date combinations efficiently.

Summary

Price pipelines are the backbone of price computation in Hotelbeds Cache API integration. They ensure that raw supplier rates are consistently transformed into accurate end-user payable prices (E.P.P), while supporting high performance, maintainability, and business rule compliance.