

Eliminating the Latency Tax on Revenue Operations



The hospitality industry is entering a compressed transformation cycle

The competitive gap will no longer be measured in brand size but in operational intelligence velocity. Marriott has a narrowing window to modernize from batch-driven analytics to real-time AI-assisted operations before hyperscalers and digitally native competitors redefine guest expectations around personalization, pricing responsiveness, and service automation. The organizations that operationalize agentic AI first at the front line will compound revenue, loyalty, and efficiency advantages at global scale. Waiting risks turning Marriott's infrastructure scale from a strategic asset into a source of operational drag.

Of Marriott's competitive set, 95% want to be their own AI and data platforms in less than three years. Only 13% are succeeding—and they are delivering 5x the ROI (globally), based on their mission-critical focus on AI and data sovereignty.

Continuous intelligence, instead of periodic reporting, becomes the power lever.

The new competitive paradigm shift is right in front of every frontline employee

Marriott's next competitive advantage will come from real-time operational intelligence at the front desk. This paper argues that EDB Postgres® AI (EDB PG AI) enables Marriott to replace fragile ETL-driven architectures with a unified, Postgres-native AI platform capable of powering live analytics and AI agents directly on operational data. By eliminating latency, reducing infrastructure complexity, and enabling governed agentic workflows, EnterpriseDB (EDB) helps Marriott optimize pricing, personalize guest experiences, improve frontline decision-making, and scale AI operations globally more effectively than AWS-centric architectures can.

Marriott's current operational architecture reflects a challenge common across global hospitality organizations: Transactional systems and analytical systems remain separated by fragile data pipelines. At Marriott scale, moving more than 50TB of data nightly creates operational complexity that directly impacts pricing agility and responsiveness.

When ETL pipelines lag or fail, pricing decisions become static precisely when demand conditions are changing fastest. During major events, weather disruptions, or sudden occupancy spikes, delayed intelligence can leave room pricing unchanged for 12–24 hours. The consequence is not merely technical inefficiency—it is unrealized revenue.

EDB PG AI eliminates much of this latency tax by collapsing operational and analytical workloads into a unified Postgres-native architecture. Instead of exporting transactional data into disconnected Spark or warehouse environments, Marriott can analyze operational data in place, dramatically reducing synchronization delays and infrastructure friction.

This creates a fundamentally different operating model: continuous intelligence instead of periodic reporting.

The future hospitality enterprise will not run a handful of isolated AI applications. It will operate thousands of continuously active agents coordinating pricing, guest personalization, housekeeping optimization, staffing allocation, loyalty engagement, fraud detection, and service recovery workflows across every property globally.



Kevin Dallas
CEO, EDB

Building Marriott's real-time revenue control plane

The infrastructure market is rapidly converging around a new strategic idea: Enterprises need a control plane for AI agents operating at scale. Industry leaders including Google, Snowflake, and Databricks are increasingly positioning their platforms around orchestration, governance, and operational coordination for agentic systems.

For Marriott, this framing is highly relevant.

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EDB PG AI positions Marriott to build this operational control plane directly on top of its existing Postgres ecosystem. Because transactional processing, analytics, vector search, and AI orchestration operate within the same governed platform, Marriott can maintain centralized oversight while enabling real-time autonomous decision support at the edge of the business.

The strategic advantage is not simply faster analytics. It is operational coherence across thousands of AI-assisted workflows.

Escaping the complexity trap of hyperscaler architectures

AWS-centric architectures were designed primarily for cloud-scale elasticity, not necessarily for operational simplicity at the edge of real-time AI decisioning. As Marriott's infrastructure grows more distributed and AI-driven, layering Aurora, EMR, Spark, warehouses, vector systems, and orchestration frameworks together increases operational friction.

Each additional synchronization layer introduces latency, governance complexity, cost unpredictability, and operational risk. Agentic AI workloads intensify this problem because they generate constant high-frequency analytical activity rather than periodic reporting patterns.

EDB Postgres AI offers Marriott a fundamentally simpler model. By converging transactional, analytical, and AI workloads into a unified Postgres-native environment, Marriott reduces architectural fragmentation while preserving deployment flexibility across AWS, private cloud, hybrid, and sovereign environments.

This becomes strategically important as enterprises increasingly push back against hyperscaler lock-in and consumption-based infrastructure unpredictability.

The organizations that win the next phase of AI transformation will not necessarily be those with the most disconnected AI tools. They will be the ones operating the most governable, efficient, and adaptive infrastructure foundation underneath them.

Turning every property into a real-time intelligence node

The long-term opportunity extends far beyond room pricing optimization.

With EDB PG AI, Marriott can transform every property into a continuously learning operational environment in which guest behavior, staffing conditions, occupancy patterns, loyalty activity, and local market signals are analyzed in real time.

A delayed room cleaning can trigger proactive guest outreach before frustration escalates. A weather event can automatically reprioritize staffing and upgrade workflows. A loyalty guest arriving late at night can receive dynamically generated compensation or personalized offers, without a need for manual intervention.

In this model, the hotel itself becomes an intelligent system.



That is the strategic shift underway across enterprise infrastructure markets today: They are moving from isolated analytics platforms toward governed operational intelligence systems capable of orchestrating AI agents at enterprise scale. Marriott already possesses the operational scale and data footprint to lead this transition.

EDB PG AI provides the infrastructure layer capable of operationalizing it.

Key recommendations

- **Replace delayed operational reporting with real-time revenue intelligence** by enabling AI-driven pricing, occupancy, and guest engagement decisions directly on live transactional data.
- **Empower Marriott's frontline workforce with governed AI agents** that improve guest satisfaction, accelerate service recovery, and optimize upsell opportunities at the point of interaction.
- **Eliminate the cost and fragility of ETL-heavy architectures** by converging transactional, analytical, and AI workloads into a unified Postgres-native platform.
- **Reduce hyperscaler dependency and regain architectural flexibility** through open, hybrid, and sovereign deployment options designed for global enterprise scale.
- **Position Marriott ahead of the next infrastructure shift** by building the operational control plane required to orchestrate AI-driven hospitality operations across thousands of properties in real time.

Competitive comparison: Why EDB PG AI aligns better to Marriott's strategic direction than AWS

Strategic Requirement	EDB PG AI	AWS Aurora + EMR/Spark Stack
Real-time guest intelligence	Direct analytics on live operational data enable immediate decision support for check-in clerks and frontline staff.	The system is dependent on replicated data pipelines and delayed synchronization.
AI agent deployment at the edge	Native support for agent orchestration is directly on transactional systems.	Multiple AWS services and orchestration layers must be stitched together.
Zero-ETL operational analytics	Unified transactional and analytical architecture minimizes data movement.	There is heavy reliance on ETL pipelines and external processing frameworks.
Revenue optimization responsiveness	Continuous pricing and occupancy intelligence are based on live operational signals.	Batch-oriented pricing refresh cycles create revenue latency.
Operational simplicity	Consolidated Postgres-native architecture reduces system sprawl.	Multiple independent AWS services increase operational complexity.
Scalability for global property networks	The design supports governed hybrid enterprise operations across thousands of workloads.	Scaling often requires additional replicas, orchestration, and synchronization.
Front desk AI copilot readiness	Real-time access to loyalty, occupancy, staffing, and pricing intelligence are on one platform.	The operational context is fragmented across disconnected services.
Cost predictability	It enables more predictable infrastructure economics and reduced data movement overhead.	Consumption-based warehouse and analytics costs can scale unpredictably.
Hybrid and sovereign flexibility	It can be deployed across cloud, private cloud, sovereign, and on-prem environments.	Optimization is primarily for AWS-native deployment models.
Open infrastructure strategy	There is deep alignment with open Postgres ecosystem and enterprise portability.	Proprietary dependency and cloud lock-in exposure are greater.
Governance for agentic AI	A unified control plane model governs AI agents and operational workflows.	Governance is distributed across multiple AWS services and toolchains.
Enterprise infrastructure strategy	It aligns with the emerging "agentic control plane" market direction identified by analysts and hyperscalers.	The system is centered primarily on infrastructure rather than on operational AI governance.

EDB Postgres AI is the first open, enterprise-grade sovereign data and AI platform, with a secure, compliant, and fully scalable environment, on premises and across clouds. Supported by a global partner network, EDB Postgres AI unifies transactional, analytical, and AI workloads, enabling organizations to operationalize their data and LLMs where, when, and how they need them. For more information, visit enterprisedb.com

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