



Embracing Integration: Unleashing the Power of Technology in the T&H Landscape

The paper explores the importance of integration strategies in meeting the demands of tech-savvy travelers in the travel and hospitality (T&H) industry.

Paper premise

The paper explores the importance of integration strategies in meeting the demands of tech-savvy travelers in the travel and hospitality (T&H) industry. The integration of systems, applications, and devices is crucial for creating a seamless exchange of data and processes, streamlining operations, and improving the overall guest experience. The confluence of cloud technology and changing travelers' demands has reshaped the integration landscape, with integration hubs emerging as the new standard. The paper discusses the integration solutions for achieving a connected guest experience, optimizing operations, enabling effective business system communications, and optimizing distribution channels. Additionally, it explores emerging trends such as the integration of ChatGPT, blockchain technology, and non-fungible tokens (NFTs) in the T&H industry. By examining these topics, the paper highlights the importance of integration strategies in meeting the evolving expectations of tech-savvy travelers and unlocking new business opportunities in the travel and hospitality sector.



Audience

This paper aims at the C-suite of organizations, cross-functional decision-making leaders, and transformation consultants to define a unified platform roadmap and transform enterprises to fulfill the needs of the next-generation customer and align to new norms of a changing business landscape.

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01

Introduction

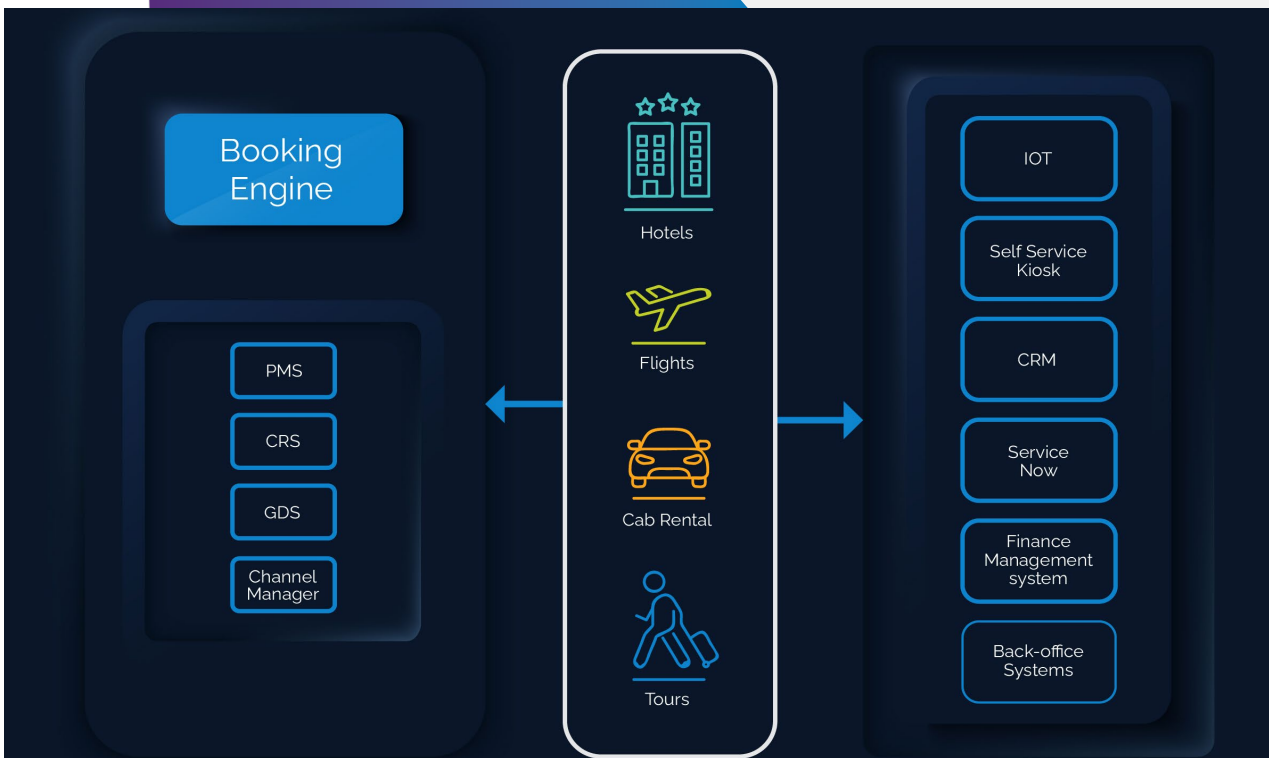
In the ever-evolving realm of technology, the travel industry has witnessed a profound shift in the preferences and expectations of today's global travelers.

These individuals, armed with their tech-savvy prowess, demand seamless experiences and instant access to information. As leaders in the hospitality sector, it is crucial to ask ourselves: Can our integration strategies keep pace with the demands of this tech-savvy clientele?

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T&H Integrations: Industry Trends and Adoption

In today's fast-paced technological landscape, successful integration is pivotal in achieving operational efficiency and elevating the guest experience within the T&H industry. The diagram below illustrates how strategic integrations at every touchpoint empower organizations to thrive in this evolving landscape.



Using various integrations like PMS, CRS, GDS, OTA, and IoT with the financial system, the industry can drive the guest experience using operational excellence.

IoT and smart devices, which could be in the form of sensors, wearable devices, etc., are expected to play a key role in enabling the hospitality industry to 'know its customers' and enhance the guest experience. Meanwhile, back-office systems, ServiceNow, and financial systems improve the business process and bring operational excellence.

The constructive collaboration between cloud technology and the evolving demands of travelers has reshaped the integration landscape within the hospitality industry. Integration hubs have emerged as the new standard for forward-thinking hospitality systems.

Leveraging the following robust integration layers, organizations can achieve remarkable outcomes:

- Connected Guest Experience
- Operations Optimization
- Business Systems Communications
- Distribution Optimization

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Integrations for Distribution Optimization

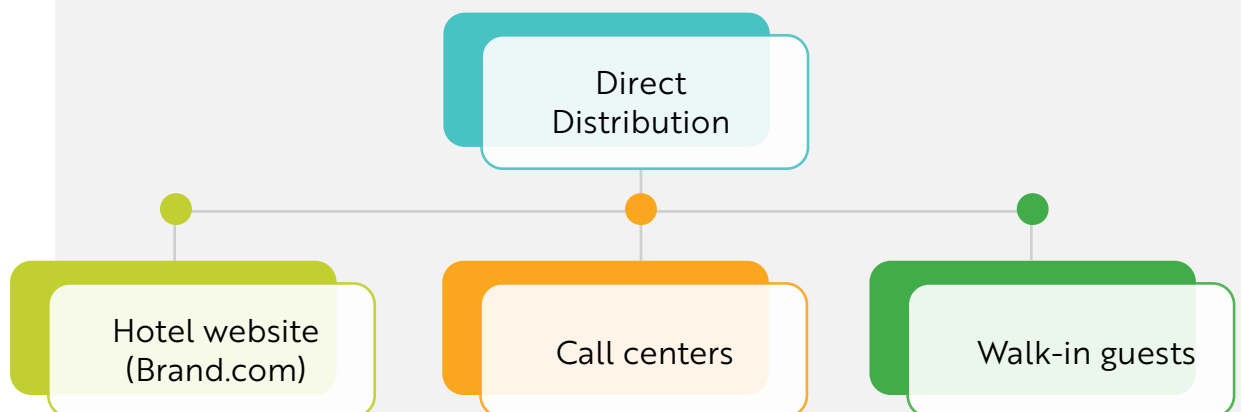
The T&H distribution system has numerous dominant players. Distribution is vital for reaching customers and promoting offerings. Having the proper inventory and competitive rates is crucial for customer purchases. The distribution mix includes direct and indirect channels, where businesses can sell directly on their websites or list with third-party resellers like OTAs & B2B players.

3.1. Direct Distribution

Direct Distribution refers to customers purchasing products directly from the business online or through direct contact.

By utilizing direct distribution, companies:

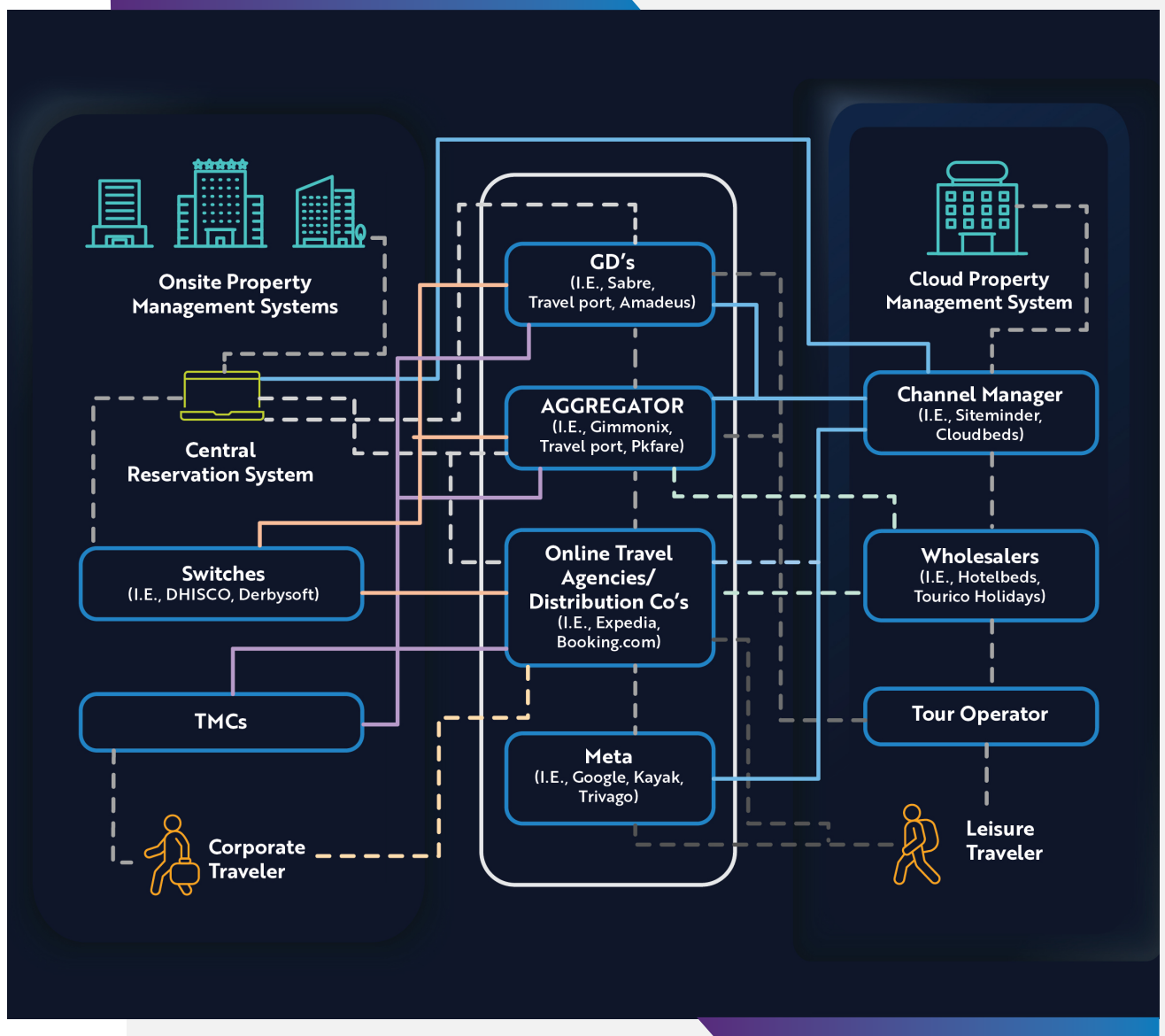
- Gain access to valuable data on customer purchasing habits
- Respond promptly to product performance and customer feedback
- Expedite product delivery to consumers
- Retain all profits without sharing them with a third-party distributor
- Cultivate strong customer relationships



3.2. Indirect Distribution

Indirect Distribution entails integrating with CRS/GDS/OTA systems to distribute products, enabling customers to purchase through these intermediaries.

With indirect distribution, businesses can reach a broader global buyer base and capture extensive customer data from various channels to create personalized messages and campaigns, but they will also need to share profits with intermediaries.



3.3. Optimizing Distribution: A Strategic Approach

Developing a comprehensive distribution strategy is a critical factor in the success of a travel business.

3.3.1. Create a distribution strategy

By identifying the appropriate distribution channels and selecting the most cost-effective options during high-demand periods, businesses can determine the optimal timing and channels for room sales, maximizing revenue and fostering customer loyalty.

Utilizing tools specifically tailored for this purpose is essential to implement an effective hotel distribution strategy. These tools may include a channel manager, booking engine, Property Management System (PMS), revenue management system, and reputation management system.

3.3.2. Compare critical metrics across channels

An integral aspect of optimizing the distribution channel mix involves comparing critical metrics across various channels. Businesses can ensure they offer the most compelling and profitable rates by gathering relevant information, such as the desired guest profile, preferred booking periods, and the channels through which guests are most likely to book.

Furthermore, it is crucial to understand the factors contributing to the sustained popularity of specific Online Travel Agents (OTAs) over time, as this knowledge enables businesses to leverage these platforms effectively and achieve maximum return on investment (ROI). The goal is to strike the right balance between attracting guests and optimizing profitability.

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Integrations for Connected Guest Experience: Enabling Personalization

In today's data-driven era, adopting a data-driven strategy is crucial for a seamless guest experience. Customer loyalty depends on exceptional experiences facilitated by technology integration. A connected guest experience unifies relationships across channels, enabling personalized messages. To accomplish this, collecting transaction and interaction data from various sources is essential. By integrating these data flows, businesses can make a lasting impression on their clientele, from pre-arrival arrangements to post-departure feedback.

4.1. Solutions for Connected Guest Experience Integrations

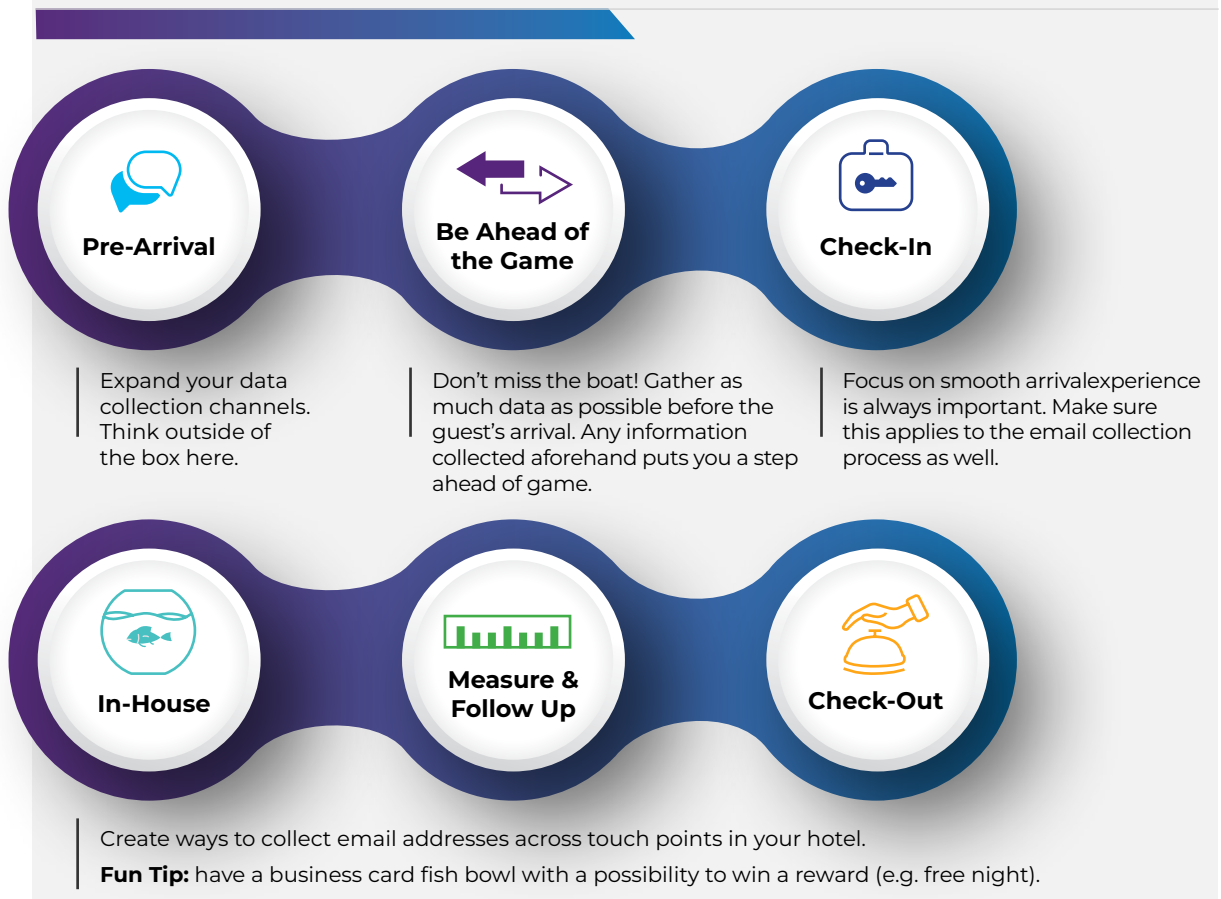
To realize a connected guest experience, organizations must leverage integrations at multiple levels, including:

- Centralized guest profile management system to ensure consistency throughout the customer journey.
- Integration with Customer Relationship Management (CRM) systems for a comprehensive understanding of customers, starting from the marketing and sales cycle.
- Meaningful analysis of guest data and seamless sharing across systems and channels.
- Utilization of contextual information to better understand customers' preferences and choices during their travel.
- Tailoring packages and offers to convert potential guests into confirmed bookings.

4.2. Touchpoints for Collecting Customer Preferences and Behavior

4.2.1. Hotel

Incorporating and consolidating guest data from various stages of their stay, both during and after, has emerged as a popular approach and strategic method to enhance the overall guest experience

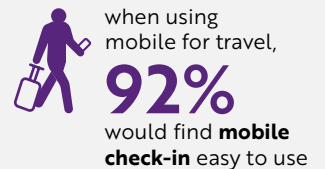
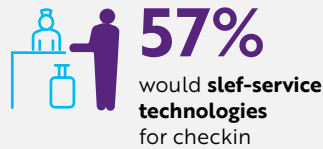
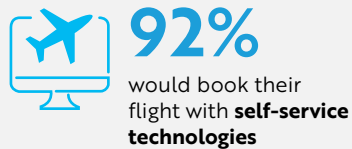


4.2.2. Travel

Contactless services, digital communication, and self-service have become essential components of the contemporary guest experience.

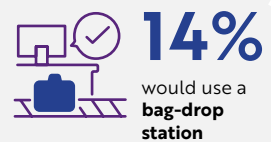
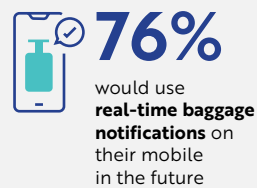
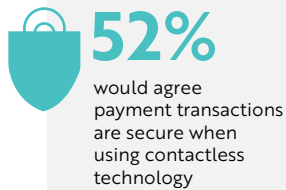
At every interaction point throughout the customer journey, guests form impressions that influence their decision to recommend the hotel or travel experience.

The industry's current trend is integrating these touchpoints and analyzing the data gathered to deliver a seamless and interconnected guest experience.



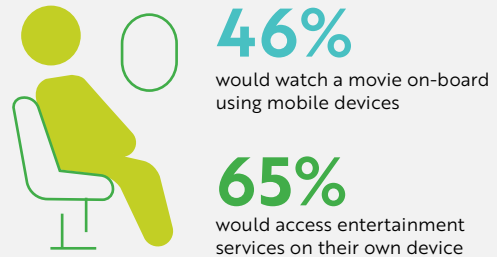
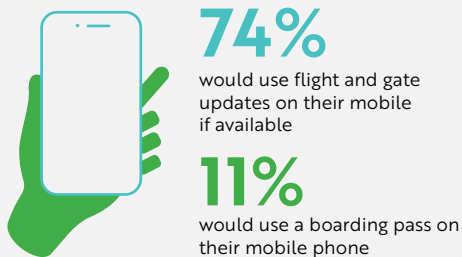
BOOKING

CHECK-IN



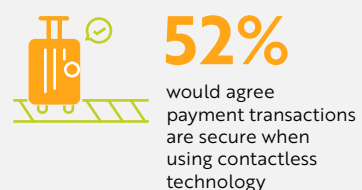
DWELL TIME

BAG DROP



BOARDING

ON-BOARDING

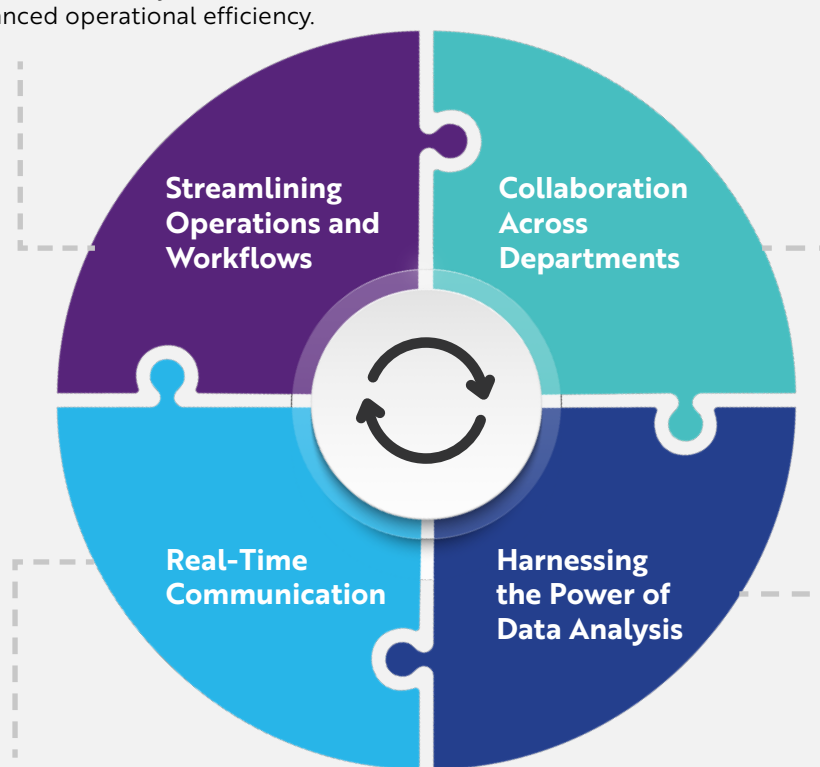


BAGGAGE CLAIM

Integrations for Operations Optimization: Streamlining Efficiency

Does your organization embrace a collaborative mindset? Identifying and prioritizing collaborative efforts for operations optimization is crucial. Streamlining operations and workflows through strategic integrations holds immense potential for the T&H industry.

- Centralizing data for easy accessibility, eliminating manual data entry and reducing errors.
- Automating booking, payment processing, check-in, and check-out processes for improved efficiency.
- Seamless communication between departments and systems for enhanced operational efficiency.
- Synchronizing back-office operations for seamless day-to-day operations and increased productivity.
- Integration and automation platforms help the organization in accounting, advanced reporting, marketing tools, and invoicing.



- Real-time data exchange among hotels, airlines, car rentals, and booking platforms facilitated by APIs.
- Using the connected and real-time communication, users can collaborate, business units can self-serve, and governance can be ensured to support various business functions and services such as ticket booking, crew scheduling, catering, load calculation, and more.
- Data analysis provides insights and predictive patterns for anticipating activity levels.
- It guides maintenance strategies, facility upgrades, and staffing schedules.
- Analyzing pricing, occupancy rates, bookings, trends, events, and holidays improves demand forecasting accuracy.
- Hotels can dynamically adjust room rates daily; airlines can customize pricing for specific routes and cities at precise times; and car rental companies can optimize fleet inventory based on city and season.

Integrations for Business Systems Communications

Pertinent guest data is scattered across various systems and data silos. Powerful and user-friendly Customer Relationship Management (CRM) solutions facilitate the integration of data silos, promoting deeper relationships and efficient collaboration across departments.

CRM Solutions

Connect with online visitors, tour operators, and agencies

Optimize business processes by prioritizing leads, capturing inquiries, delivering offers, and enhancing travel agent productivity

Provide better traveler experience through actionable insights and itinerary sharing

Service Now Integrations

Increase efficiency by utilizing the task automation feature and saving valuable time

Handle repetitive tasks effectively

Eliminate the risk of human errors that often occur during repetitive tasks



Financial Systems

Automate financial operations and get a comprehensive overview with a centralized application

Crucial for hospitality businesses aiming to compete globally, possessing multi-currency, multi-location, and multi-language capabilities

Financial management significantly impacts hotel operations by including internal controls, cost management, payment processes, and influencing operational decisions

Emerging Trends in T&H Integrations

Integration of ChatGPT in the travel industry has gained significant attention and adoption by renowned players.

Customers can interact seamlessly with the chatbot for reservations, availability inquiries, and booking modifications.



ChatGPT improves customer service by addressing itinerary inquiries, providing travel recommendations, and resolving trip-related concerns.

Personalized recommendations based on customers' travel histories suggest destinations, restaurants, activities, and accommodations.

Adoption of language models like ChatGPT will likely increase, stimulating business growth and improving customer experiences in the travel sector.

Integration offers inherent advantages due to its decentralized nature.

Blockchain ensures secure transactions, eliminating intermediaries like banks.



Blockchain-based identity verification allows data collection and analysis on customer preferences and past travel experiences.

Personalized travel packages and recommendations are curated using this valuable information.

Integration of blockchain-based NFTs in travel holds promising potential.

NFTs offer exclusive access to private tours, VIP experiences, and special events.



NFTs can establish loyalty programs and collectibles in the travel industry.

NFTs enhance security by verifying the authenticity of travel documents like passports and visas.

Travel companies can achieve new levels of exclusivity, security, and customer engagement.

Integrations create additional revenue streams and innovative opportunities in the travel sector.

Conclusion

In the era of tech-savvy travelers, integrations have emerged as a catalyst for success. By embracing integrations at every level, organizations can unlock operational efficiency, elevate the guest experience, and maximize revenue potential. The confluence of cloud technology and changing demands presents an unparalleled opportunity for us to reshape the way we operate and elevate the guest experience. Let us harness the potential of integration hubs and propel our businesses toward unparalleled success in the ever-evolving digital age.

At Cybage, we have extensive experience and expertise in delivering integration solutions for clients in the travel and hospitality industry. We have helped our clients migrate from legacy platforms to microservices-based platforms, streamlined quote processes with Salesforce, Zuora, and Oracle integrations, and carried out several payment integrations to improve financialization. We leverage our competencies in various integration technologies, systems, formats, and inventory types to provide customized and innovative solutions to our clients. At Cybage, we are committed to embracing integration as a catalyst for success and transforming the travel and hospitality landscape in the digital age.

9.1. Our Integration Expertise

Competencies - Integrations Expertise

INVENTORY
TYPE

- Hotel
- Air
- Cruise
- Car Rentals
- Vacation Rentals
- Attractions

INTEGRATION
TECHNOLOGY

- Kafka
- Cassandra
- Microservices
- API/Web Services
- AWS Services
- Web Scraping
- Google Analytics

INTEGRATION
SYSTEMS

- Peakwork
- GDS
- Switches
- CRS
- Consolidator Systems
- OTA

INTEGRATION
FORMATS

- EDF
- XML (Proprietary, Open Travel, HTNG)
- EDI

Competencies - Integrations Expertise

PMS

micros
OPERA

Visual One

SMS
SPRINGER-MILLER SYSTEMS

IQware

protel

WinPM
Property Management

AUTOCLERK

GDS & ADS

amADEUS

Sabre

worldspan

Galileo
by Travelport

FARELOGIX

POS

micros
OPERA

Aloha

InfoGenesis

Hospitality Solutions International

CRS

ihotelier
Reservation Solutions

amADEUS

INNTØPIA

SynXis / **Sabre**

InnLink
CENTRAL RESERVATION SERVICES

Internet Distribution & Consolidators

PEAKWORK

PEGASUS
GLOBAL DISTRIBUTION

Expedia

travelocity

KUONI

thx

agoda

GRUPO HOTUSA

allied-tpro

Hotel Direct Connectivity

IHG
InterContinental Hotels Group

Hilton

HYATT

ACCOR

Payment Gateway Integration

PayPal

Authorize.Net

VERISIGN

wirecard

bibit

SACH

DEAL

CRM

salesforce

Microsoft Dynamics CRM

sugarcrm

SplendidCRM

Aptify
communityconnect

CMS - Customization & Integration

SharePoint

SITCORE

ektron

Mambo.IO

Joomla!

Drupal

Social Media

Instagram

LinkedIn

Snapchat

X

facebook

9.2. Success Stories

9.2.1. Aided financialization for a global hospitality solutions provider by carrying out several payment integrations

About the Client

- A leading cloud-based technology provider that offers solutions for the global hospitality market
- Offers solutions that cater to reservations, operations, end-to-end guest experiences, and property management
- Aims to provide memorable and fulfilling experiences at every stage of the journey

Business Needs

- Integrate E-wallet, credit card, POS payments, and other payment options for the properties
- Support hoteliers with regional payment options
- Provide flexibility for guests to choose multiple payment facilities like credit cards or e-wallets
- Increase security for credit card payments by ensuring the environment is PCI compliant

Solutions

- Supported payment gateway integrations using APIs and redirections
- Integrated several payment gateways such as Braintree, Ogone, Cybersource, MyCheck, Red Dot, Ingenico, and Adyen
- Facilitated support for wallet payments
- Enabled 3D security for online card payments

Technology Stack

Java Stack



Database



Business Impact

- Online payment configuration attracted an upsurge of 5% in hotel chains
- Increase in CC payments by 19% owing to the 3D security feature
- Surge in online payments by 32% on account of trusted payment gateways
- Market-based payment gateway configurations improved sales by 11%

9.2.2. Streamlined the quote process with Salesforce, Zuora & Oracle integrations

About the Client

- A leading global IT company that offers services within the travel and tourism industry
- Offers technological services to build, enhance and upgrade booking, ticketing, and pricing processes
- Collaborates with airlines, airports, railways, hotels, travel agencies, and corporations to build applications

Business Needs

- Enable complete visibility of information flowing between integrated applications
- Provide real-time data synchronization
- Automate the manual sales credit process to cope with product changes
- Eliminate data shortfalls to streamline the sales credit process
- Set up an effective reporting process

Solutions

- Integrated Salesforce and Zuora CPQ for seamless quote creation
- Automated the quote process by integrating Salesforce with Oracle E-Business Suite
- Eliminated the limitations of Zuora CPQ using customizations in Salesforce
- Seamlessly integrated the platforms for efficient, flexible, and accurate analytics

Technology Stack



Business Impact

- 25% increase in productivity by eliminating manual processes
- 100% tracking of the negotiation process driven through the platform
- Automated the quoting process and helped improve RFP response time by 15%
- 10X impact on business decisions with accurate information
- 5X improvement in the process of product selling and forecasting

9.2.3. Assisted an OTA in migrating its suppliers from a legacy platform to a maintainable microservices-based platform

About the Client

- A leading Dutch digital travel website founded in 1996 that creates and customizes travel packages
- Offers services that help customers reserve seats on a flight, choose hotel rooms, book rental cars, and more
- Its services are available in 43 languages

Business Needs

- Migrating integrations from the Legacy platform (CRBMS) to the Supplier Booking System platform
- Identifying and understanding the functionalities to be moved to the Supplier Booking System platform
- Requirement elicitation based on the legacy application
- Implementation of integrations on the Supplier Booking System platform
- Verification & monitoring of migrations on the Supplier Booking System

Solutions

- Acquired an understanding of the legacy code and conducted functional analysis
- Built the supplier integrations on the Supplier Booking System platform based on existing configurations
- Improved the business logic implementation
- Maintained knowledge repository for quicker onboarding of new team members
- Conducted organized tracking and monitoring of implementation tasks
- Automated migration testing

Technology Stack

Scripting language



Programming language



Open Source Micro Framework



Open Source Containerization Platform



Open Source Testing Tool



Integration Testing Tool



API Testing Tool



Business Impact

- 80% efficiency gained due to microservices
- Migration verification efforts reduced by 30%
- 15% cost saving with speedier onboarding of resources
- Migrated 60+ suppliers to the new Supplier Booking System platform
- Performance gain of ~20% on the Supplier Booking System platform



Cybage Software Pvt. Ltd.

[ISO 27001 Company]

India | USA | Canada | UK | The Netherlands | Germany | Japan |
Australia | Singapore | Ireland | Sweden

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