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The Fast-Forward Tech Stack for 2024

The Hotel Yearbook Technology 2024

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Today's Evolving Cloud Infrastructure in Hospitality

Distribution & Revenue

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Synopsis

In this article, IDEaS' Klaus Kohlmayer delves into the opportunities and challenges associated with the adoption of cloud technology and Revenue Management Systems (RMS) in the hospitality industry. The article highlights how industry-specific legacy systems, data security concerns, and unique operational and regulatory requirements have contributed to a slower pace of cloud migration. Despite this, the benefits of scalability, reduced maintenance costs, and real-time data accessibility are driving more hotels to transition. The volume of data being processed by RMS providers has doubled since 2018, necessitating robust infrastructure and enabling cost-effective implementation. Future trends suggest further advancements in cloud infrastructure and data integration, potentially making cloud data centers accessible from any location, reducing costs, increasing availability, and decreasing latency. The future of the hospitality industry lies in leveraging the voluminous data collected for informed decision-making and automation.

What if you could open your cell phone and access notifications to understand what has happened in your market immediately?

What if you didn't have to do anything? What if the system did all the work for you?

Now, imagine if you could go online and purchase a revenue management system (RMS) for your small or independent hotel, download it, and begin implementing it immediately.

Or what if your RMS was available from anywhere, via your phone or smartwatch? No, really. Visualize that you are on vacation, and your owner/GM calls to ask you what's going on at the hotel you manage. With a quick glance at your phone, you provide that answer without rushing to get to a computer.

These ponderings may seem futuristic, but what if the future is now?

But why now? What has changed to enable advancements such as these? To better understand these transitions, we need to look at the challenges.

WHY HAS IT TAKEN SO LONG TO MOVE THE HOTEL TECH STACK TO THE CLOUD?

The connectivity of today's world relies upon the now-ubiquitous data centers scattered around the world. While most business-critical software exists in the cloud today, much of the hospitality stack has been hosted in private data centers. This has made migrating the hospitality stack to large data centers such as Amazon (AWS) or Google more complex, contributing to the time it has taken for widespread adoption.

The hospitality industry has relied on legacy systems developed before cloud technology became prevalent. These systems were designed for on-premises deployments and typically required complex integrations between various hardware and software components. Migrating these systems to the cloud required significant effort, including rewriting, or refactoring the software code, adapting integrations, and ensuring data compatibility.

From a data security and privacy perspective, the hospitality industry handles sensitive customer data, including personally identifiable information (PII) and payment card details. Cloud adoption requires thoroughly evaluating security measures and compliance requirements to ensure data protection and regulatory compliance.

While cloud-based solutions offer long-term benefits such as scalability, latency, and reduced maintenance costs, some hoteliers have been hesitant to invest in initial migration efforts due to concerns about return on investment (ROI) and the potential disruption to existing operations.

The hospitality industry has unique operational and regulatory requirements that must be considered during cloud migration. This includes property management, point-of-sale, and revenue management systems (RMS), third-party vendor integration, and industry standards compliance. Ensuring that cloud-based solutions meet these needs has taken time and effort.

THE RISE AND DEMAND FOR REVENUE MANAGEMENT IN THE CLOUD

Despite these challenges, the hospitality industry and the SaaS vendors that make up the technology stack continue to advance to embrace cloud technology. Certainly, RMS has been in the private cloud since the early 2000s, but as the number of properties converting to RMS increased, a larger infrastructure has become necessary.

With a rich history of more than 30 years, revenue management isn't the new kid on the block. From its earliest days, revenue management was designed to optimize the revenue potential of data regardless of market conditions. It consists of numerous components focused on predicting demand and optimizing price and availability.

But while hospitality software providers have traditionally been seen as the least likely to migrate to the cloud environments of AWS and Google, the accelerated advancements in cloud technology, mobility, and backend integrations have changed that narrative.

From an RMS provider perspective, the quantity of data being processed has more than doubled since 2018. Leading providers are handling upwards of 10 billion pricing decisions every day. This requires infrastructure and capacity to deliver pricing decisions to each hotel before 8 am local time every day. It also means the cost of implementation decreases while increasing the speed and scalability.

Taking steps to go "cloud-native" means dramatically accelerating every part of the product development process, transforming concepts into capabilities far faster than had previously been possible. The engineering resources of an organization like AWS are a force multiplier that, if used properly, enables product development organizations to innovate and deliver value more rapidly, more reliably, and more securely.

WHAT'S NEXT?

From a cloud infrastructure point of view, as with most technology, it's hard to keep up. Hyper-scalers Google, Amazon, and Microsoft have been leading the data-center market for years with massive data centers located around the world. However, that seems to be on the verge of disruption as well.

For example, Larry Ellison announced a new strategy to build hundreds of small cloud data centers around the world at the Oracle Database Summit in May 2023. The company believes that doing so will differentiate it from competitive cloud providers. What this means for the hospitality industry is yet to be seen. However, if Oracle is successful, it will ensure cloud data centers will be accessible from any country, potentially reducing costs, increasing availability, and reducing latency.

Data integration between key hotel tech stack providers has been happening for the past several years. Partnerships AWS and others are bringing us closer to a truly cloud-native model. What does all this mean for your hotel? It means ongoing, instant software updates, less maintenance, and more data at your fingertips.

The hotels of the future are going to be the ones that know how to leverage the millions of data points that are being collected, incorporate that into their decision-making, and automate those decisions as they market, distribute, price, and sell.

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As Chief Evangelist and Development Officer for IDEaS, Klaus role is to challenge existing thought processes, create stimulating conversations and help bring to live the future of Revenue Management and Pricing in hospitality and travel. Klaus has been working to challenge the status quo for the last 20+ years. He re-joined IDEaS from TSA Solutions where he led the company's global commercial, operations and strategic partnership initiatives. Previously with IDEaS he started the companies' global consulting division and led teams that partnered with leading hotel companies to jointly develop the world's first group price optimization and function space revenue management solutions as well as requirements for new pricing methodologies. An advocate of lifelong learning, Klaus holds a Bachelor of Science in Hotel Management, has studied business at Henley Management College, real estate investment and asset management at Cornell University's School of Hotel Administration; and finance and strategy at the Singapore Management University.

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