PATENT OWNER

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**LOCATION:**
*Washington, DC, United States*

**YEAR:**
*2006*

**STATUS:**
*Laureate*

**CATEGORY:**
*Business and Related Services*

**NOMINATING COMPANY:**
*EMC*

**ORGANIZATION:**

## Marriott International, Inc.

**PROJECT NAME:**

Marriott International Integrated Global Reservations System and Web Presence

### Summary

Marriott International, Inc. (NYSE:MAR) is a leading global lodging company that shapes and enables its business through an ambitious program of improvements in technology. Beginning in the late 1990s, Marriott realized that to be competitive and lead the future lodging market, it had to upgrade and fully integrate two of its most crucial systems: the Marriott Automated Reservation System for Hotel Accommodations (MARSHA) and Marriott's Internet technology platform, Marriott.com. These systems, combined with Marriott's key business and inventory applications and marketing and loyalty programs, comprise a global technology infrastructure that facilitated more than 69.5 million new reservations in 2005, averaging over 190,000 per day, while maintaining availability of better than 99.99 percent. The updated infrastructure enabled 100 percent growth in Marriott.com sales from 2003 to 2005, logged single-day sales records of nearly $14 million, and led the industry in online hotel rooms sales. In fact, Marriott's seamless multi-brand, multi-channel integration enables the company to offer the industry's only global rate guarantee, the Look No Further® Best Rate Guarantee, stating that Marriott guests will always get the lowest available rate when booking through any Marriott channel worldwide. It is a remarkable success story, demonstrating how aligning investments in technology infrastructure with business vision and strategy can enable extraordinary business results and how Marriott leveraged its early investment in eCommerce to set new standards for the global lodging industry.

### Introductory Overview

Marriott International, Inc. (NYSE:MAR) is a leading lodging company with more than 2,700 properties and approximately 499,000 rooms worldwide. In 2005, Marriott relied on its integrated technology infrastructure to facilitate more than 69.5 million new reservations, an average of over 190,000 per day, while maintaining availability of better than 99.99 percent. These achievements were made possible by Marriott's ambitious, long-term program of improvements to ensure that technology shapes and enables the company's business. Marriott's agile, enterprise-wide infrastructure and scalable model for rapid growth in eCommerce has solidified the company's dominant market position, enabling Marriott to lead the global lodging industry in

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online hotel room sales, while maintaining the industry's lowest cost per reservation.

The innovations that make up Marriott's current operating environment evolved as part of Marriott's strategic planning process which began in the late 1990s. Marriott's business and technology leaders realized that to be competitive and lead the future lodging market, they had to upgrade their Marriott Automated Reservation System for Hotel Accommodations (MAR-SHA) with state-of-the-art technologies, including open systems architecture and networking, high-performance storage management and business continuity capabilities. To fully utilize these capabilities, Marriott integrated MARSHA with all of the company's key business applications and made its entire inventory available as a single image in real-time across all channels. This seamless multi-brand, multi-channel integration enables Marriott to offer its Look No Further® Best Rate Guarantee – the lodging industry's only truly worldwide rate guarantee – stating that Marriott guests will always get the lowest available rate when booking through any Marriott channel.

Marriott also ensured that MARSHA's real-time requirements could scale easily to meet the accelerated needs of Internet-enabled sales channels, which were presenting the company with look-to-book ratios of 100-to-1 or greater. By comparison, traditional reservation center channels and global distribution systems had presented Marriott with look-to-book ratios of only 5-to-1 and 10-to-1, respectively.

With MARSHA's core technology functioning effectively by the early 2000s, Marriott took its reservations and marketing strategy a step further by developing an infrastructure roadmap to support Marriott's overall eCommerce objectives. Anticipating the Internet boom, Marriott was one of the first lodging companies to commit to enabling customers to conduct significant business online. In 2003, Marriott successfully completed an aggressive 11-month upgrade to its entire Internet technology architecture and operating environment, expanding Marriott.com's scale, scope and functionality to enable rapid responses to changing business needs. Marriott's online enhancements provided leading-edge personalization and a robust shopping experience for online visitors, combined with better analytical and marketing capabilities to help Marriott convert more of those visitors into satisfied, repeat customers. Today, customers spend approximately 1.5 million hours per month on Marriott.com, more than six times as much as they spend with Marriott's reservation and customer care agents.

Based on open-systems standards and fully-integrated with key inventory, marketing and loyalty programs, Marriott.com is an enterprise asset providing the public face of Marriott to its guests, shareholders, and current and potential associates. Between 2000 and 2005, Marriott.com's gross sales grew from just over $400 million to more than $2.8 billion, representing approximately 14 percent of Marriott's gross revenues in 2005, and significantly outpacing industry predictions of 25% growth in online lodging reservations. Marriott.com also delivered marketing emails to more than 200 million recipients throughout calendar year 2005, enhancing Marriott's reach to high-value customers. Even with these demanding and unpredictable workload characteristics, Marriott is regularly identified as the fastest and most reliable travel site on the Web, as measured by Keynote Systems, a leader in e-business performance measurement and management services.

Marriott's technology infrastructure has followed a strong evolutionary growth path, with the groundbreaking work done on MARSHA leading to the business processes that today drive traffic to Marriott.com. In this way, Marriott put itself ahead of its competitors in both sys-

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tems integration and its ability to handle large transaction volumes with 24/7 continuity. The result is an integrated business and technology environment that runs smoothly, efficiently and cost-effectively, enabling the company to achieve its distribution and customer service objectives consistently, and to add new hotels and brands to Marriott's integrated global system practically overnight as the business grows.

## Benefits

Marriott's integrated global reservations system and Marriott.com Internet platform deliver a wide range of benefits for the company's guests and corporate customers, owners and franchisees and associates. At the most basic level, the combination of highly scalable, available reservations capabilities, combined with the lodging industry's leading Web site provides unprecedented, highly personalized access to Marriott's global inventory. Marriott.com provides a central, self-service point for the company and for Marriott's Spirit to Serve Our Guests personalization program. It realizes the potential of eCommerce, and does so with 18 different country sites, delivering content in Spanish, German, Japanese, French and a variety of other local languages.

Utilizing its global footprint to greatest advantage, Marriott has strengthened its local and enterprise-wide operations with agile systems that can seamlessly deliver the right information to the right people at the right time. The integrated infrastructure is focused on delivering value, with impressive results, including:

- Agility in responding to changing market conditions and future needs,

- Improved decision-making to drive revenues and profitability,

- Enhanced relationship-building opportunities across all touch points,

- Reduced complexity in Marriott's computing environment,

- Consistency of information across systems,

- Enhanced security for data and transactions, and

- Shared best practices and measurement tools across the enterprise.

Thanks to its integrated infrastructure, Marriott's guests and corporate customers benefit from personalized services, delivered consistently at all locations. So that guests may connect to Marriott's content, entertainment and work outlets with optimum convenience and flexibility "any time, anywhere," the company provides multiple ways to interact with Marriott, whether online, over the phone, with a Marriott associate or using self-service tools at its properties.

Today, the company's owners and franchisees have more options in connecting to Marriott's systems to conduct business. They benefit from faster conversions, implementations and upgrades to both business and guest-facing systems, robust capabilities to manage multiple hotel operations from diverse locations, increased productivity through a stronger technology tool set and better intelligence about when, where and how management or staff action is needed. For instance, a new hotel can be added to Marriott's MARSHA and Marriott.com systems literally overnight and be available directly to the public or via Marriott's online partners for full worldwide sales in a matter of days. This rapid time-to-market and powerful sales engine is one key factor in why owners and franchisees prefer investing in Marriott hotels. Additionally, new or changed information about a hotel's services, local attractions or related Internet links can be

Marriott maintains an aggressive program to maintain or reduce its technology unit cost-per-reservation year over year. This focus enables Marriott's Sales and Marketing team to drive more profit to the bottom line. In fact, Marriott's technology infrastructure has enabled 100 percent growth in sales on Marriott.com from 2003 to 2005 with single-day sales records of nearly $14 million. By leveraging Marriott.com's efficient design, Marriott also has been able to keep technology unit costs for operating the site at less than a quarter of a percent of gross sales since the launch of the new platform. At the same time, the entire operational costs, in hardware, software, people, utilities, etc., needed to run MARSHA are lower in 2005 than they were in the year 2000.

## The Importance of Technology

Marriott's integrated global reservations system and Internet platform was developed through the collaboration of two groups, Marriott's technology organization (called Information Resources or IR), which is responsible for the design, development and support for all sales and marketing systems including MARSHA, and the eCommerce group, which manages and supports all of Marriott's electronic sales and marketing channels. Together, these groups deployed robust reservations capabilities that scale easily to meet the company's growth targets as well as handle high-volume Internet traffic. Those enhancements were backed with leading-edge Web functionality that attracts and holds customers, enabling the Internet to generate significant revenues and drive customer preference. Marriott builds its success through technology agility, implementing a system once, and then re-purposing it successfully across the enterprise.

MARSHA Technology

Marriott's MARSHA reservation system celebrated its 21st birthday in 2005, and has set the standard in the lodging industry for many years, providing the lowest cost per transaction, highest contribution to occupancy, and highest revenue generated per call, according to ChannelTRAK, an independent survey. Nevertheless, by the late 1990s, MARSHA faced rising infrastructure costs, deteriorating system availability, and end-of-life capacity of its central processor. Marriott's ambitious growth plans and the Internet boom placed further pressure on the aging system. In response, the company upgraded the MARSHA infrastructure and assets, and surrounded MARSHA's operating system with enhancements to improve scalability and uptime, reduce costs, and migrate to an open TCP/IP connectivity model. Today, MARSHA is a more powerful reservations engine than ever, supporting seamless, multi-channel booking for Marriott's 2,700 properties worldwide.

MARSHA is more than a simple reservations processor. As a core system connecting Marriott to customers, partners and suppliers, MARSHA presents the company's global room inventory as a consistent, single image for sale in real-time across all channels. Hundreds of applications run on MARSHA, including inventory control, sales, pricing, client data, rewards data, and more – basically everything needed to maintain a global reservation system. All of that takes a lot of horsepower, and MARSHA uses the IBM Transaction Processing Facility (TPF) operating system, which is designed for high-volume, real-time applications. Marriott runs TPF on an IBM z990 mainframe server, which relies on EMC's high-end Symmetrix DMX storage for maximum performance. In fact, MARSHA is now capable of handling in excess of 400 percent

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