



STARWOOD ASSURES AND REWARDS GUESTS WITH POSITIVE EXPERIENCE USING GOMEZ

Overview

Since its founding in 1969, Starwood Hotel & Resorts, Inc. has become a leading global luxury and leisure resort and hotel company. The Starwood Hotel line brands include St. Regis®, The Luxury Collection®, Sheraton®, Westin®, W® and Four Points® by Sheraton. Starwood Hotels are located in more than 80 countries with nearly 750 properties and 120,000 employees.

To meet the needs of consumers, Starwood launched a renovated StarwoodHotels.com in July of 2001 as an outlet to facilitate guests' desire to compare prices, update the Preferred Guest program and book hotel reservations. The site is the central location for booking reservations at all Starwood Hotel brands. Since the site's launch, website-generated sales have jumped from \$200 million to a projected \$1 billion annually representing approximately 11 percent of Starwood's total booking revenue.

Given StarwoodHotels.com's high traffic and transaction volume, company management recognizes that even a few minutes of website downtime or degraded web application performance can result in a loss of revenue. For the past four years the company has used the Gomez Performance Network (GPN) external web performance monitoring service from Gomez, Inc. to help prevent downtime. Today Starwood Hotels works with Gomez to create shared reports and relies on Gomez metrics and tools to detect most performance issues—before they become problems.

Background

In the span of four years sales, on the StarwoodHotels.com website have grown from \$200 million to approximately \$1 billion annually. Driving this dramatic increase has been a constant focus on quality and reliability, ensuring customer satisfaction. Web-businesses are constantly faced with fierce competition and fickle consumers.

Operating in this business environment, Starwoodhotels.com has to ensure a consistently available website to prevent customers from defecting to ready competitors. The strong growth in revenue from the Internet channel and need to maintain customer loyalty mandated that Starwood implement comprehensive and rigorous website monitoring and reporting tools. To ensure these tools met the company's high performance demands Starwood selected Gomez for its proven technology and expertise.

"We were well prepared for the launch of the new data center. We used Gomez as a means to validate our efforts before going live and I had all the confidence in the world as I flipped the switch.."

— Keith Kelly
Vice President of Web Technology

STARWOOD

HOTELS & RESORTS WORLDWIDE, INC.

At A Glance

Who: As a global leader in hotel groups, Starwood Hotels is one of the first hospitality organizations to offer patrons the option of making online reservations. The Starwoodhotels.com website consolidates all Starwood Hotel brands together for greater ease of use and acts as a venue to access the Starwood Preferred Guest (www.spg.com) Program.

Key Facts:

- 2002-2004 named "World's Leading Hotel Group"
- Four hotels listed on the Condé Nast Traveler's "Top 100 Best Hotels in the World"
- 120,000 employees at nearly 750 hotels in 80 countries
- \$5.36 billion in sales for fiscal 2004
- Headquartered in White Plains, NY

What: Starwood Hotels utilizes Gomez products and services such as the Gomez Performance Network (GPN) to continually monitor web application performance across the company's network of service providers and partners. The GPN monitors site availability and responsiveness in real-time from worldwide locations and offers recommendations for improving performance.

Where: Up to 100 rules-based application tests run around the clock from Starwoodhotels.com's network operations center. Leveraging data from the Gomez Performance Network (GPN), Starwood Hotels' business managers review critical performance information every day in an ongoing effort to improve customer experience.

When: Starwood Hotels has been a Gomez GPN customer for the last four years

How: Starwood combines comprehensive data using Gomez products and services to verify, validate and improve its web application performance and end user booking experience.

When White Plains, NY-based Starwood Hotels launched a revamped StarwoodHotels.com in 2001 the company intended to run with the same focus that created one of the world's leading hotel and resort companies. Two key management decisions helped capture the potential of the website:

- Starwood quickly realized the significance of the Internet for its impact on sales. In order to harness this potential resource, Starwood directed significant resources to aid in the promotion of the site to ensure potential customers were aware of the online options.
- To expand the site's capabilities, Starwood moved to integrate several of its customer programs to the site saving time and money while enabling users to control more aspects of the online booking experience.

Understanding the need to provide consistently superior performance for its customers, Starwood enlisted the help of Gomez to maximize the reliability and growth potential of the site. Working closely with Gomez, the IT team developed a number of Gomez Performance Network tests to automatically monitor web application performance across common transactions, such as comparing hotel rates, looking up resort amenities and booking hotel rooms. Over time, with the help of Gomez personnel and data, Starwood has optimized its web-based applications. In addition, Gomez data forms the basis of a comprehensive report that is widely distributed to the company's senior executives on a daily, weekly, and monthly basis. These reports are used by management to evaluate the site and formulate decisions regarding the future investments for the site. Though the basis of the Starwood and Gomez relationship is Internet performance, the stronger connection allows for Gomez to aid in Starwood's business decisions by aligning business and IT objectives.

Business Challenge #1: Improving Data Center Performance

In 2001, Starwood's Southbury, Connecticut data center was responsible for all national and international web traffic. At the time, Starwood was unaware of any concern regarding the physical location of the data center and its impact on end-user performance. Gomez' Gomez Performance Network (GPN) software tested the performance of Starwood's website applications from a widespread set of networks across the nation and quickly noticed a discrepancy in page load times between the East and West coasts. The data determined that visitors from the West coast experienced a page load time of 3.56 seconds compared to 2.08 seconds for their Mid Atlantic counterparts when conducting the same online activities.

Starwood understood that a single second of delay in load time could have a dramatic influence on the bottom line. Using the Gomez data as justification, Starwood relocated the data center to a geographically centered location in Houston, Texas to improve end-user performance. Following the completion of the new data center in November 2004, Gomez data validated the move as it detected a leveling of load times across different regions of the country.

The successful launch of the Houston data center prompted Starwood to further utilize Gomez' performance intelligence data in their construction of a secondary data center in Braintree, Massachusetts. The new data center was to serve a dual purpose:

- A backup for the primary Houston site in case of outages, disaster recovery, or during regularly scheduled system maintenance
- To share the website's growing global traffic coming through the single data center

After the Braintree data center was constructed, Starwood used Gomez's GPN to greatly reduce the risks associated with the \$5.0 million project. Gomez was used to validate the preparedness of the new center before it opened to mass traffic. When the new data center had some early configuration issues creating unnecessarily long response times, Gomez data was used to isolate discrepancies in performance metrics that Starwood's internal website monitoring did not notice. Based on this data, Starwood was able to make the appropriate adjustments prior to going live with the new data center so that both centers performed equally well. To ensure both centers were functioning optimally, Starwood conducted additional Gomez tests against the Braintree and Houston data centers to confirm both were running at the same capacity and performance.

The extensive testing proved worthwhile as the new data center opened flawlessly for public

traffic in June of 2005. Keith Kelly, Vice President of Web Technology for Starwood, was in charge of the development of the new center and said he did not feel the same level of anxiety normally surrounding the anticipation of the launch of a new data center. "With Gomez's projection I had all of the confidence in the world," said Kelly. "I could not imagine flipping the switch without this level of knowledge." The data centers now share the load of over 221,000 national and international visitors a day.

Business Challenge #2: Reducing Risk During Change Management

Starwood's managed service provider conducts regular maintenance for the hotel's data center that includes a reboot of all its servers. On Sunday, August 14, 2005 maintenance included a routine system restart for Starwood and by all indications appeared to be conducted with typical results. Gomez, however, detected a sudden eight percent drop in website availability, when the site emerged from the maintenance window, and promptly alerted Starwood of this abnormality. Following an evaluation of the Gomez data Starwood realized one of the servers was not functioning properly after it restarted. The server was not receiving traffic from the external network, resulting in one in 12 visitors being dropped from the site.

Because Starwood runs in a load-balanced environment the problem could not be easily detected by internal monitoring and went unnoticed. However, the external monitoring from the GPN detected the problem instantly and alerted operations personnel to the problem. The Gomez alert allowed Starwood to work with its managed service provider to quickly resolve the server issue before it became a customer impacting crisis. The quick action minimized site downtime and prevented a potential loss of eight percent of sales until the problem was detected through other means. Gomez's sophisticated web application monitoring and quick notification eliminated lost sales and maintained customer satisfaction.

Business Challenge #3: Understanding Competitors' Performance

While Starwood Hotels has already received substantial business benefits from its relationships with Gomez, it is looking forward to even greater use of Gomez web application performance information. For instance, to gauge its online performance over time and gain competitive information of its site compared to its competitors', Starwood employs Gomez benchmark information.

Gomez Benchmarking provides valuable analytical performance data so companies can baseline, in real time, the performance of their web applications. This allows companies to fine-tune web applications to meet business objectives and maintain customer satisfaction. Fully understanding the connection between web application performance, business results, and improved process discipline drives increased profitability, decreased risk, and sustained service differentiation. The Gomez methodology ensures that it provides the most comprehensive and unbiased performance overview of the market.

Specifically, Starwood uses Gomez's Hotel GPI Benchmark to track their weekly performance directly against other Hotels. The Hotel GPI provides a real-world view of how long it takes to navigate a website and how frequently that process is impeded by errors. Starwood diligently monitors this benchmark and makes adjustments, as needed, to its site to maintain consistent performance and ensure that the site is meeting its customers' needs and expectations.

Conclusion

With the help of Gomez and the GPN, Starwood Hotels is able to maintain optimal performance levels and continue to grow the profitability of the Starwoodhotels.com website. Through Gomez web performance monitoring and benchmarks, Starwood is able to respond to issues in real-time and minimize any adverse affects from factors impacting Internet performance. As evidenced by Starwood Hotel's use of the GPN, Gomez helps improve the bottom line by:

- Notifying companies of performance issues before they become significant problems
- Reducing risks through extensive testing prior to launching a new system
- Identifying areas for and validating appropriate infrastructure investments

Starwood is also exploring how to use the knowledge and information gained from Gomez in

"Gomez brought to our attention that our servers were not optimally configured for http compression which resulted in slower page load times. We changed the compression settings and used the Gomez data to validate that the adjustments had a material impact on what we were seeing. We immediately noticed a dramatic jump in our benchmarks as we moved from tenth to second in our category."

– Keith Kelly
Vice President of Web Technology

other areas. Two areas under consideration are:

- **Enhanced Problem Resolution.** Gomez WorldView helps staff quickly determine the customer impact of performance issues and validate the effectiveness of problem resolution efforts. The GPN works in conjunction with HP OpenView to automatically execute a variety of diagnostic tests from locations around the world and across multiple backbone providers when performance incidents occur.
- **Improved Service Level Management.** Using Gomez data, Starwood is planning to include Service Level Agreement performance language in deals with potential third party application vendors. If the vendor's solution has an adverse affect on the performance of the Starwood site after installation, Starwood is able to measure the impact and hold the vendor accountable thanks to Gomez's data.

About Gomez

Gomez is the leading supplier of enterprise solutions that help companies achieve and maintain optimal performance of their business-critical web applications. Using Gomez products and services can help enterprises reach performance excellence as they strive to meet and surpass their business goals. Founded in 1997, Gomez provides website performance monitoring and measurement, benchmarking, and competitive insight to Global 1000 companies across all industry segments, including financial services, e-commerce, information technology, and travel. Gomez is Network Computing magazine's "Editor's Choice" for best Internet performance monitoring service. For more information, please visit www.gomez.com.



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