



### Starwood Hotels and Resorts Worldwide, Inc.

One of the world's largest hotel and leisure companies, Starwood Hotels and Resorts Worldwide, Inc. (Starwood) is increasing the customer service provided by its luxury units. It is now converting their IT environment to a system that is even more responsive, customizable, and capable of corporate governance. Starwood is well represented in most major markets around the world with over 730 units, including brand names such as St. Regis®, The Luxury Collection®, Sheraton®, Westin®, W® and Four Points® by Sheraton.

**"We've got to manage an enterprise that's fully services-enabled."**

—Tom Conophy,  
Executive VP and CTO, Starwood

## Challenge

Starwood has a diverse portfolio containing over 730 owned, leased, managed and franchised hotels, and continues to expand this base when opportunities arise. The unique characteristics of each hotel chain demands customized technology solutions. However, in a highly competitive industry, centralized controls are required to eliminate redundancy, while the speed and accessibility of the applications are increasingly important.

In an effort to address these issues, for nearly four years, Starwood has been converting its IT environment to a Services-Oriented Architecture (SOA) while the hotelier's core centralized reservation system remained a legacy mainframe-based application. This progress fulfills the initial goal of uniting the company's geographically diverse holdings onto one flexible framework that can scale as needed to handle the traffic spikes and massive server loads that come with the hospitality business. With both room reservations and Starwood's Preferred Guests customer-loyalty program running as Web services, the IT department now needs to manage a large and growing set of services. This means establishing a system where services can be seen and easily reused by IT, as well as monitored and measured.

Not only does Starwood have the need to manage its services, it also desires to centralize its reservation system into one core application, while still allowing for customization at the property level, and easy accessibility for all of its partnering travel agents. Starwood expects to approach \$1 billion in bookings this year through its own branded Web sites, with significant additional traffic volume hitting its reservation system from partner Web sites such as Orbitz LLC and Travelocity.com LP. A SOA with a full set of governance features, and a flexible, platform-independent system needs to be established to increase application reuse, and reduce overall costs.

## Technology

Within a year, Starwood intends to move completely off its mainframe and Cobol applications to instead rely on the 150 applications or "services" it has already built around Web services standards. Half of these services have already been created in Java 2 Enterprise Edition. However, getting this far into the project taught the Starwood IT team that generating services wasn't enough to solve their problems.

**"We knew we had to manage services better. I wanted non-intrusive management tools. Maintaining low latency (in service-response time) is a key criteria for us."**

—Tom Conophy,  
Executive VP and CTO, Starwood

## Technical Requirements

**With already a good amount of experience with services, the IT team quickly outlined their requirements:**

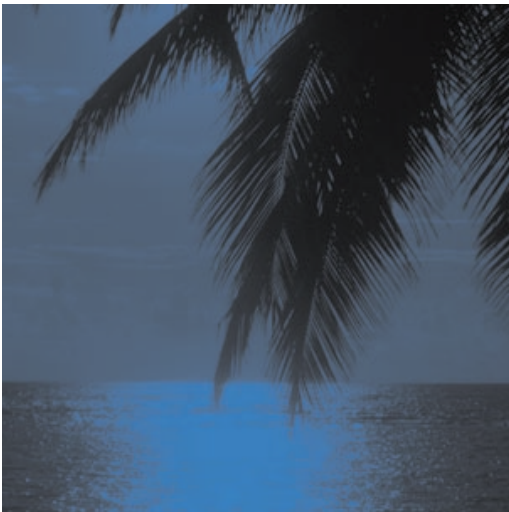
**Flexibility & Speed**—They needed a flexible, standards-based environment that was platform independent, and had a fast response time;

**Governance**—Centralization, control and measurement features provided by capabilities of the most recent version of Universal Description, Discovery and Integration (UDDI V3);

**Customizability**—Each of the hotel chains had their own needs for application customization;

**Reuse**—Systems set in place that allowed services to be easily recognized, and optimized their reuse;

**Compatibility**—Allowing for partnering travel agents to easily access and use the reservations system.





### Solution

**“A key economic benefit of SOA is service reuse, but this is impossible to achieve without a simple mechanism for advertising and discovering services.”**

**“Systinet was selected because it offers strong governance and lifecycle management functionality that are necessary for our extensive implementation.”**

**—Israel del Rio,  
Senior VP of Technology  
Solutions and Architecture,  
Starwood**

After careful consideration of all the options, Starwood chose Systinet, alongside the Systinet Governance Interoperability Framework (GIF) partner, Actional. They selected Systinet Registry because it captures detailed SOA service description and usage information into a centrally managed, reliable, searchable business services registry. Using Systinet Registry in conjunction with Actional’s SOAPstation

XML routing and monitoring tool and Looking Glass Server management console, Starwood got all the capabilities it was looking for.

Still too early in the process to elaborate on the implementation of the solution, the Starwood IT team already has a plan in place for how it intends to accomplish its goals. Currently a project-based deployment is being tested centrally in IT with a small roll-out. They will move from their legacy system to UNIX platforms that run on HP-UX and Linux over the course of several months. After the small, controlled deployment in IT has been thoroughly tested and the key features are learned and implemented, they will conduct training for the IT personnel across the enterprise. Once this is completed, it will be rolled out to all of Starwood’s loyalty programs, meeting planning, and reservation recording in more than 730 hotels worldwide. Starwood anticipates this process will take one year.

### Why Systinet?

Systinet has been a leader in the Service Oriented Architecture (SOA) market for more than five years. Having earned a distinguished reputation of trust in the industry by repeatedly building award-winning products and guiding customers of all sizes to design and deploy effective SOA infrastructures, Starwood was easily drawn to Systinet during their evaluation period. Adding to this was Systinet’s approach toward partnering:

Leading the way, Systinet introduced a groundbreaking initiative in SOA governance called the “Governance Interoperability Framework” (GIF). The Framework makes a SOA simpler to manage, control and scale. GIF dramatically improves SOA visibility, governance, and lifecycle management. Under the initiative, participants jointly develop a set of technologies and specifications providing integration at the data, control and UI level between partner products.

The GIF, supported by Systinet Registry acting as the system-of-record, is the first and only collaborative, standards-based approach to controlling an SOA across multiple vendors and technologies. The GIF also marks a significant milestone for the industry, as it brings together SOA management, security, integration, enterprise information integration, composite applications and business intelligence vendors for the first time.

### Results

The change in systems is expected to save Starwood as much as \$20 Million annually in operating costs alone. In addition, they expect a substantial improvement in the amount of transactional traffic the new reservations system will be capable of handling.

#### Deployment Summary

The projected, phased approach to deployment is as follows:

**Phase 1**—A small, project-based implementation will be created in a central IT location. The goal at this point is to set up a viable system, test it, and learn the new architecture.

**Phase 2**—Next the team will learn the new features and capabilities that allow for governance and customization.

**Phase 3**—Once the central team is well versed in the new system, they will train their peers across the company on the new features, functions, systems, and processes.

**Phase 4**—Finally, the rollout to all 730 hotels by the end of the year.

#### Main Benefits

The anticipated benefits include:

**Return On Investment (ROI)**—Reducing operating costs by \$20 million annually;

**Governance**—Systinet Registry along with GIF partner, Actional, provides the centralized controls Starwood requires for managing, tracking and enforcing its processes;

**Customization**—The Systinet Registry features are easy to use and allow for customization on the local level such as at each hotel chain;

**Easy Partner Accessibility**—The Systinet Registry is platform independent, which provides a solution that Starwood partners can easily access, regardless of their IT environment.

“Literally, within 24 hours the systems were integrated. That’s the perfect example of why SOA makes a lot of sense.”

**—Tom Conophy,  
Executive VP and CTO, Starwood**