

# HOW INTERCONTINENTAL HOTELS GROUP MAKES PROGRESS



## GOAL: HIGH PERFORMANCE, 24X7 AVAILABILITY

InterContinental Hotels Group (IHG) is the world's largest hotel company in terms of number of rooms—585,000 and counting. To stay on top, it has a clear vision of how IT needs to support the business. "Our market is like the cereal aisle in the grocery store with hundreds of different boxes," says Eric Norman, Director of Enterprise Architecture for IHG. "Our products need to be on all the shelves—with the rates, inventory, and availability out there—all of the time. In particular, processing on our production Web sites must be as fast as possible and work reliably. If a Web site crashes for any period of time or even slows down during critical peak times, we take a revenue hit. Our site visitors can just click away to our competitors."

"With so many moving parts, including more than 1,000 transactions per second on our Web sites, visibility into how business processes are doing and the ability to troubleshoot are paramount," adds Norman. Fortunately, IHG knew about—and implemented—a product that could provide these capabilities: Progress® Actional® software for managing SOA applications.



InterContinental Hotels Group

### CHALLENGE

*Remain the leading hotel chain by increasing revenues and market share with a robust Web site that quickly and reliably serves visitors*

### SOLUTION

*Build a resilient system that can ensure the success of 1000s of business transactions based on Progress® Actional® for lifecycle management of interconnected applications*

### RESULTS

*A better customer experience, increased revenues, lower IT costs*

## DRIVING REVENUES WITH INNOVATIVE SYSTEMS

To stay on top and increase revenues, IHG opens about one hotel a day. It's also developing an enterprise-wide service-oriented architecture (SOA). Having a common SOA across brands offers opportunities for improving customer service to drive revenues and provides agility in bringing new properties to market quickly.

However, the global IT group responsible for guest-facing and revenue-generating technologies across brands knew first-hand some of the difficulties of developing and maintaining a successful SOA in such a complex organization. IHG implemented pockets of SOA, beginning in 2002. But those projects lacked strong SOA management. Uptime and availability were issues. It took time and long phone calls to discover the source of processing problems.

"Because of these battle scars, when we decided to take the SOA to the enterprise level, SOA management was one of our first enterprise standards," says Norman. For IHG, SOA management is mission-critical. "The goal is to drive revenues with innovative, highly differentiated, and simple-to-use systems," adds Norman.

## SOA MANAGEMENT WITH MINIMAL LATENCY

The IT team had seen and liked Actional before there was an opportunity to use it. Given a mandate to create an enterprise-wide SOA, the team checked out the product. Actional needed to monitor services executing across IHG's heterogeneous resources, including WebSphere, WebLogic, Resin, and Apache servers; Web and Java services; and multiple protocols like XML and HTTP. Actional would also need to perform under high-load, fast-throughput conditions—1,000-plus transaction per second. Actional passed the test, providing native plug-in support for a multi-vendor SOA environment and real-time visibility with little latency.

"For high-transaction activities, like looking up available rooms or booking a reservation, we couldn't afford a lot of management overhead," says Norman. "Actional could handle our heavy transaction loads with little performance impact. That's where it stands head and shoulders above the competition."

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*Eric Norman  
Director of Enterprise  
Architecture for  
InterContinental Hotels Group  
(IHG).*

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### ***End-to-end Visibility***

The key was the Actional architecture. In Actional agents or points of visibility and control residing on network nodes add only microseconds of latency—amounting to less than 2% of CPU capacity.

“Actional’s other value is its visibility into performance and availability during the development cycle all the way through to the runtime environment,” Norman adds. Specifically, by correlating agent input, Actional provides real-time flow maps of end-to-end SOA business processes—across heterogeneous environments—as well as statistics on performance and availability per node.

### ***Preventive Maintenance, Fast Troubleshooting***

With Actional users can also set alert thresholds—for example, for individual service-level agreements (SLAs)—so that Actional will generate alerts during slowdowns. When an alert occurs, users can drill down to a flow map of the individual SLA-violating transaction—complete with statistics—to quickly trace back the problem to its root cause.

“With Actional we can monitor our service-level agreements, so that if processes start trending slower, we can be proactive and perform preventive maintenance early on as opposed to just waiting for a shutdown, so that we have to reset our platforms,” says Norman.

## **BENEFITS THROUGHOUT THE SERVICE LIFECYCLE**

Today, IHG is taking advantage of or planning to use Actional capabilities such as end-to-end SOA monitoring and historical data throughout the service lifecycle, to evolve and optimize its SOA.

### ***Faster Development and Testing***

With Actional, IHG developers can improve time to market for services while assuring their robust runtime behavior—providing IHG with agility in the face of changing market conditions. Norman explains, “With Actional, developers don’t need to build a test harness or other tests in order to see how a service will work. Early in development and throughout service

lifecycle changes, they can assess the robustness of a service and how it will behave in the runtime environment. They can turn on all the monitoring tools to view how a service functions and routes between various other services in a business process. So they can see how the application is going to work before it is migrated to an integration server.”

### ***Runtime Monitoring and Control***

In the SOA runtime environment, IHG will use Actional primarily to monitor processes in real time and troubleshoot issues—to ensure fast, reliable SOA performance 24x7. This will contribute to differentiating IHG from competitors and encourage potential customers to frequent and remain on IHG channels.

IHG also will use Actional’s SOA controls to align SOA behavior with its business goals. For example, in the hotel industry the looks-to-books ratio is an indicator of value. While “looks” have been growing dramatically, bookings growth has been modest. IHG can create SLAs that ensure that those partners with superior looks-to-books ratios receive priority or higher speed SOA processing as a means of driving bookings and revenue growth.

### ***Efficient, Cost-effective SOA Evolution***

With Actional IHG can also evolve its SOA in a way that optimizes benefits such as reducing IT complexity and costs. Once Actional is integrated into IHG’s SOA repository, developers can check to make sure they aren’t producing duplicate services.

“Actional gives me visibility into those services that are being used—the top ten—and those that are not being used,” says Norman. This information can help business and IT stakeholders make decisions about reusing services in new business opportunities and eliminating or re-crafting little-used services.

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## BEST PRACTICE: IMPLEMENT SOA MANAGEMENT EARLY

In fact, reliability and service reuse go hand-in-hand. For an SOA to provide its promised benefits such as business agility and lower IT costs, the business has to support the reuse of services. But services must be reliable to get this support.

Norman explains: “If a service is used by multiple business groups, its reliability becomes more important and its availability has to be stellar. If you don’t have visibility into service operations and performance monitoring, you’ll end up in long calls trying to troubleshoot issues. End users and the business will start losing confidence in the IT delivery mechanisms. So don’t wait. Implement SOA management before you get services out there and in use. You need it throughout the service lifecycle.”

### INTERCONTINENTAL HOTELS GROUP

InterContinental Hotels Group owns, manages, leases, or franchises, through various subsidiaries, almost 4,000 hotels and more than 585,000 guest rooms in nearly 100 countries and territories around the world. The group owns a portfolio of well recognized and respected hotel brands, including InterContinental® Hotels & Resorts, Crowne Plaza® Hotels & Resorts, Holiday Inn® Hotels & Resorts, Holiday Inn Express®, Staybridge Suites®, Candlewood Suites®, and Hotel Indigo®.

IHG also manages the world’s largest hotel loyalty program, Priority Club® Rewards, with over 37 million members worldwide—and books 160 million guest stays per year through multiple channels. These include call centers, travel agents, global distribution systems, partner and Web travel sites, and the company’s branded Web sites, in 12 local languages.

### PROGRESS SOFTWARE

Progress Software Corporation (NASDAQ: PRGS) provides application infrastructure software for the development, deployment, integration and management of business applications. Our goal is to maximize the benefits of information technology while minimizing its complexity and total cost of ownership.

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