



Internet Service Provider Validates System with Avaya Interactive Response and IQ Services Load Testing

Challenge:

To simulate actual customer traffic to the contact center, demonstrating maximum system performance and load balancing.

Solution:

- Avaya Interactive Response
- ScanSoft Speech Applications
 - Automatic Speech Recognition
 - Interactive Response
- IQ Services Load Testing

Value Created:

The successful load testing significantly lowered system support costs as well as reduced the average time agents spent with each caller, increasing contact center productivity.

An Internet service provider (ISP) was formed 19 years ago from one man's effort to make the power of the Internet available to the average consumer. In the years since, the ISP has grown to a company of 19,000 people serving a community of more than 30 million members worldwide. The company's mission is to build a global medium as central to people's lives as the telephone or television — and even more valuable.

The ISP wanted to test its Avaya Interactive Response by sending a controlled amount of traffic to a target system. In this way, it could identify and fix errors — before real customers used the system.

The ISP selected a solution with Interactive Quality (IQ) Services, Inc. testing the Avaya Interactive Response. IQ Services, a Premier-level member in the Avaya DeveloperConnection program, is a performance testing and availability monitoring vendor.

A Business Challenge

The challenge was to provide a controlled amount of telephone and/or Web browser traffic to a target system to replicate what happens when actual customers call the system. In this way, the ISP could see a demonstration of the Avaya solution's performance.

It is important to note that a year earlier, IQ Services had tested an ISP implementation for Avaya and the ISP. This implementation had gone into production, but the ISP subsequently removed it from service when the solution did not achieve the agent hold time reduction objectives that had been set for it. That is, the ISP had forecasted a reduction in customer service representative (CSR) time spent with each caller. However, this reduction didn't materialize, and the net effect was a longer overall average call duration, i.e., higher telecom cost per call. So the ISP set out to develop a new application, with the development and implementation to be managed by Accenture, and the application to be developed by ScanSoft.

Key Capabilities of the Solution

The solution included the Avaya Interactive Response and IQ Services Load Testing.

Avaya Interactive Response is a complete speech application platform with a versatile array of tools and options to meet a wide range of customer self-service needs. Interactive Response software empowers enterprises to automate customer interaction and fulfillment tasks via speech, Touch-Tone, fax or TDD devices.

IQ Services Load Testing places the customer's voice and Web systems under anticipated high-volume production traffic conditions — thus validating the systems' performance under real-world conditions before launch.

Seamless Transition to a New System

The testing process included several steps:

- IQ Services worked with the design and implementation teams to specify the test scripts that would be used to load test the implementation end-to-end, including network Interactive Voice Response (IVR) and screenpop processes, as well as ramp-up and data collection plans.

- IQ Services provided controlled traffic to the solution and digitally recorded every telephone call end-to-end.
- With the recordings, members of the technical support team quickly identified issues, then researched, resolved and verified that the issues had been corrected.
- After test completion, IQ Services provided several performance test reports, including scatter diagrams and detailed call reports that documented and illustrated call-by-call detail and system performance.

The target system — known as the Tech Call IVR Speech (TCIS) project — was designed to gather information from the ISP's customers calling to request assistance from the ISP's tech support group. The TCIS, designed by the ISP and ScanSoft, prompted each caller to provide a spoken input for:

- Operating system and version running on the caller's home computer, such as Microsoft Windows NT, Macintosh OS 9.2
- Caller's method for accessing the Internet, such as dialup, DSL, cable
- Caller's telephone number, which is used to query a database

The TCIS implementation was one of the first deployments of the new Sun-based Avaya Interactive Response. The Interactive Response boxes themselves were to be installed in an ISP facility and integrated with several other components, including:

- Toll-free access and network IVR process provided by AT&T and MCI
- Computer telephony integration process and equipment provided by Cisco, application provided by Gold Systems

- Back-end legacy data base provided by the ISP
- VoiceXML browser functionality
- Speech recognition functionality from SpeechWorks (now ScanSoft)
- IR Application provided by SpeechWorks (now ScanSoft)

Because this was classified as an early introduction project, the Avaya Product Manager, Jim Hughes, wanted to ensure that the system was properly integrated and ready for production before cutover. Jim Hughes strongly suggested that the Avaya account team include performance testing in the implementation and system acceptance plan, which they did.

Benefits for the ISP

The solution's main benefit to the ISP was the reduced CSR time required to interact with and process callers' queries. Load testing offers several other benefits:

- Load testing data allows technical support personnel to quickly identify any issues so they can be fixed; the system can then be retested to verify the fix was successful.
- Solutions with embedded issues that are discovered during load testing typically go live about 30-60 days faster than those solutions that do not have performance testing prior to cut-over to production.
- Solutions that are load tested have significantly lower support costs both during and after the warranty period because the solution has been tested end-to-end prior to going live.
- Load testing provides a clear milestone for the customer to accept the solution, allowing payment to be made.

- Sales personnel get paid faster on solutions that are load tested.
- Load testing using IQ Services methodologies is hardware independent, software independent and language independent.

An IQ Services representative adds, *"Load testing the Avaya solution achieved the goal of quickly identifying issues within the implementation so they could be addressed in a timely manner."*

About IQ Services

Located in Minneapolis, Minnesota, Interactive Quality (IQ) Services, Inc. is a leader in load testing and availability monitoring for contact center and Web-based business solutions. When contact center managers need proof in advance that their contact center solutions will withstand the stress of high-volume, real-world use — and when they want to make sure their systems perform during production — they turn to IQ Services.

Since 1996, IQ Services has tested hundreds of contact centers, as well as voice and Web applications, for companies small and large, including many of the FORTUNE 500®. Contact center managers rely on IQ Services for:

- Load testing: Go live with confidence
- Availability monitoring: Go home with confidence
- Specialized testing and professional services: Go to new levels of customer service with confidence

Technologies have changed, but the company's goal has remained constant: To provide easy, fast, affordable and accurate testing services.

For more information, visit www.iq-services.com.

About Avaya

Avaya enables businesses to achieve superior results by designing, building and managing their communications infrastructure and solutions. For over one million businesses worldwide, including more than 90 percent of the FORTUNE 500®, Avaya's embedded solutions help businesses enhance value, improve productivity and create competitive advantage by allowing people to be more productive and create more intelligent processes that satisfy customers.

For businesses large and small, Avaya is a world leader in secure, reliable IP telephony systems, communications applications and full life-cycle services. Driving the convergence of embedded voice and data communications with business applications, Avaya is distinguished by its combination of comprehensive, world-class products and services. Avaya helps customers across the globe leverage existing and new networks to achieve superior business results.

For more information about Avaya, visit www.avaya.com.

About DevConnect

The Developer*Connection* Program (DevConnect) is a comprehensive set of innovative sales, support, marketing and services programs through which Avaya works with members to develop and promote their products and solutions that interoperate with Avaya solutions.

For more information, visit DevConnect at www.devconnectprogram.com.

