

TVNZ builds flagship news and entertainment site with Gen-i's software testing service

TVNZ is New Zealand's largest free-to-air broadcaster and the nation's public service broadcaster, operating the TVONE and TV2 television channels.

The company also provides an online news service via www.tvnz.co.nz. With the latest national and worldwide news, as well as information about forthcoming television programmes, the site is a key plank in TVNZ's strategy to provide New Zealanders with integrated delivery of content on static or mobile screens.

Named Best Website at the 2006 Qantas Media Awards, the site has won plaudits for its depth of multimedia content and its ability to supply video on demand for news shows or major sporting events, such as the Commonwealth Games.

The site is built to host periods of intense activity, often when major television events are screened, and successfully illustrates TVNZ's commitment to innovation and the use of new technologies.

Building confidence before going live

TVNZ first launched its flagship tvnz.co.nz news service in 2004. The portal replaced the existing nzzoom.com news site, and began as flat HTML content. Soon after the launch of the portal, TVNZ decided to add further functionality to support major television events.

The proposed solution was a complex web site, consisting of a content management and publishing system, supported by a cluster of application and web servers utilising multiple caching mechanisms.

TVNZ recognised that the second phase of the web site needed to be a well architected and thoroughly tested solution. However, at that time, the company did not have the resources required for the testing needed.

The company decided to engage an independent testing and quality assurance (QA) support team. After reviewing several options, TVNZ decided to outsource its testing project to Gen-i.

The Gen-i testing solution

Gen-i's software testing capability includes the full range of testing services supported by its testing methodology and best practices. The service extends from analysis of the documentation and design, to test planning, execution, management, evaluation and reporting.

Gen-i provided TVNZ with a software testing team that included a test manager, test analysts and a specialist load tester. The team was supported by a part-time Gen-i project manager with previous testing experience. During the final stages of acceptance testing, the team was also supplemented by TVNZ's own producers.

Testing for success

The team began the project with a scoping exercise to outline the timelines, budgets and associated risks. A test strategy was then developed that would set the testing framework, communicate how testing would be conducted and facilitate consensus amongst all involved.

The strategy was then used as input to the test planning process, which covered the activities required to prepare the necessary test scripts, test data and test environments for the successful test execution.

Gen-i then managed, coordinated and executed the various testing phases working closely with the relevant TVNZ technical and business groups. These included test scoping and test strategy, test planning, system testing (smoke testing and functional testing), and acceptance testing (smoke testing, user acceptance testing, load testing and soak testing).

Following the successful completion of the testing project, the revamped site went live in June 2005.

Reaping the benefits

TVNZ was delighted with the performance of the Gen-i team.

"The Gen-i team proved to be extremely diligent and dedicated to the task at hand," said John Ferguson, TVNZ Interactive Production Manager. "I appreciated the calibre of people that Gen-i delivered for us. The use of the Gen-i team to plan and manage testing was highly beneficial in ensuring the quality of the project."

One of the key factors in the success of the project was the decision to set up a QA environment that duplicated the production environment. This allowed the performance testing to be conducted on the same hardware as the production system.

It not only ensured that the live web site was not impacted by the software testing, it also guaranteed that the testing was not constrained by the availability of a testing environment.

According to Ferguson, Gen-i's testing team fostered a strong working relationship with the TVNZ development and infrastructure teams.

"Gen-i's approach is to use open communication to build trust and mutual respect," said Ferguson. "This helped create a more cohesive, responsive and productive project team."

The appointment of both a testing manager and part-time project manager within the Gen-i testing team also contributed to the success of the project. The test manager's role was to handle the day-to-day management of the project, providing weekly status reports. The project manager focused on the resourcing, change and scope tracking and financial status reporting, escalating issues as and when necessary.

Gen-i also recommended the involvement of the TVNZ business throughout all the testing phases. "This ensured knowledge transfer from throughout the business, and fostered a sense of familiarity and ownership of the system," said Ferguson.

The involvement of the TVNZ business was across all phases of the project, including the review of requirements, reviewing and signing off test scripts, and the participation in the functional testing. The project also benefited from the inclusion of a TVNZ producer and subject matter expert to jointly lead the user acceptance testing with the test manager.

Free to concentrate on software development

Through its partnership with the Gen-i testing team, TVNZ ensured that all business requirements were successfully implemented, managing and minimising the risk of failure.

"Gen-i has the skills and focus to do the best job possible within budget and schedule constraints," said Ferguson. "The team offers an unfiltered, independent insight into a software project's quality issues and risks."

All test plans, test scripts and test results were signed off by TVNZ, ensuring that the business achieved the outcomes it wanted.

"Gen-i's testing service enables you to have real confidence in the final solution," concluded Ferguson. "It also allows your development teams to focus on what they do best – writing code."