Hewlett Packard Enterprise

Channel 4 automates performance testing of agile online services

HPE LoadRunner enables new DevOps work processes worth $372,000 a year

Objective
Streamline load testing of new services

Approach
Relied on previous experience of using HPE LoadRunner

IT Matters
- Eliminates performance issues enabling confident deployment of new services
- Enables automated processes that support continuous deployment
- Engages development teams to support performance testing

Business Matters
- Saves $186,000 a year in employment costs
- Delivers a further $186,000 a year in increased productivity
- Ensures a good customer experience on the website

Non-linear viewing is growing in popularity and that has increased the traffic to Channel 4's website to over two million on-demand views a day. New services need to be thoroughly tested before they go live and that is achieved with HPE LoadRunner.

Challenge

Need for a more effective test tool
Channel 4 was established in 1982 to provide the UK with its fourth television service. With two locations in London and over 1,000 employees, it is commercially self-funded and is owned and operated by Channel Four Television Corporation, a public body that is part of the UK Government's Department for Culture, Media & Sport.

Non-linear viewing, such as catch-up or on-demand, is becoming increasingly significant in the broadcast world so the success of the company's channel 4.com website is now critical to the success of the channel. With over one million on-demand views a day and 10 million registered users it's essential that the site runs efficiently and that means stringent testing before services go live.

Case study
Channel 4

Industry
Communications, Media
and Entertainment

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"About 25% of our releases used to have performance issues but since we have been testing with HPE LoadRunner we have had no production or pre-production issues. We can now deploy new services with total confidence."

– Mark Smith, online QA manager, Channel 4

Performance testing, and in particular load testing, are crucial elements of the development process as QA manager Mark Smith explains: "We have a lot of very small releases and we have performance testing embedded in the development team. We work in agile development teams; our testing is specifically focussed and we have two performance testers."

As well as longer overnight tests and functional testing, the team uses short 10 to 15 minute load tests in its Bamboo continuous deployment to reveal any problems with response times or transactions per second before new services go into production.

However, testing was being hampered by the tools. Some could not provide the necessary reporting sophistication while others were difficult to script or had expensive pricing models based on consumption. The team works on continuous integration and continuous deployment models and needed a system that would provide more detailed statistics and analysis.

Solution

Automated test processes
Channel 4's senior performance analyst, Nicholas Godfrey, had previous experience of HPE LoadRunner. This industry-standard, performance engineering software generates real-life loads, identifies and diagnoses problems and gives developers confidence that the services they deploy will work efficiently from day one.

"I'm an HPE LoadRunner man. I've used it for more than 10 years and it's excellent. A first-class product; an analysis tool to die for so it was top of my list," says Godfrey. Because of this and the attractive HPE LoadRunner pricing model, the company contacted HPE partner and test specialist Infuse Consulting. Infuse and HPE LoadRunner developers then worked with Channel 4 on a proof of concept to get the Continuous Integration plug-in for its Jenkins development automation solution up and running.

Rather than throwing millions of simulated users at the cached front-end, Channel 4 testers now isolate applications and hit the back-end servers with individual tests. Volumes are fixed according to the logs on individual services and this means that typical tests are limited to 1,000 or 1,500 threads.

Customer at a glance

Software
• HPE LoadRunner

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There can be up to 13 API releases a week
so multiple tests run at the same time which
is a lot of work for two people. That is why
half of the work is now automated to reduce
the manual workload.

Benefit

Significant return on investment
HPE LoadRunner testing has now
eradicated performance issues with new
services as Smith explains: "Previously, about
25% of our releases would have performance
issues. There were recurring ones and we
would find those but it would be at the end
of the project just before it was about to go
live. We would save most of them from going
to production but we did have some that got
through production and we also had a lot of
delays through late testing. Now we find
issues before they go down the production
line which eliminates last minute testing and
saves time and money. We no longer have
any pre-production or production issues and
we can deploy with confidence.

"Half the work is now covered by automation
and that enables us to add value. This saves
us employing another tester which, with
wages and other overheads would cost
$186,000 a year, and I estimate that
increased productivity is giving us a further
$186,000 of testing for free. The total value
to the company is $372,000 and that's a
conservative estimate."

Streamlined testing means that developers
are now totally engaged with the process
and HPE LoadRunner is part of a plan
to introduce self-service test automation.
Developers will send a message which will
spark up the applications in the environment,
run the load tests then email back the results.
This means that testers will become Subject
Matter Experts advising on performant
design, analysing performance issues and
modelling new scenarios.

Learn more at
hpe.com/loadrunner

Our solution partners

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