

Case Study

Vodafone / Kabel Deutschland

Kabel Deutschland is the largest cable television operator in Germany with an annual revenue of almost 2bn Euro. It offers around 150 free-to-view and pay TV channels to approximately 10 million homes as well as internet and telephone services. In 2013 it was acquired by the Vodafone group.

Kabel Deutschland were looking to extend and upgrade their VoD platform, Select Digital. The platform offers the latest DVD/Bluray release movies as well as catch-up content from more than 50 TV channels such as RTL, Sat.1, ProSieben, VOX, Disney Channel, History HD, Syfy and TNT Serie. They were looking to add additional capacity in a significant upgrade project so they approached Eurofins to provide a managed testing partnership.

Eurofins provided 20 full-time team members, including Test Specialists, Technical Test Engineers, Test Analysts and Test Managers. The work was distributed to offer the most effective approach and was conducted on-site at various Vodafone and Kabel Deutschland locations in Germany, at Eurofins' premises in Diepenbeek, Belgium, and at Eurofins' premises in Gdansk, Poland.

The test environment in the Eurofins lab consists of a live network setup via a TV Pop as well as a lab network in line with the live network to allow for high test efficiency and flexibility. Testing was broken into several strands - Set Top Box (STB) Receiver Acceptance Testing, Video on Demand (VoD) Testing and Test Automation.

Set Top Box (STB) Receiver Acceptance Testing

The Eurofins team undertook test case development and test execution. The STB software was fully verified from the point where the signal entered the RF input of the STB to the correct presentation of video and audio on the TV. The end-to-end testing scope covered the complete functionality of the STB in different areas such as SSU, broadcast changes, CA and Connected Features. As well as testing the STB software, we also conducted thorough hardware and application validation testing.

Alongside the testing, we prepared acceptance recommendations and generated comprehensive test reports.

Video on Demand (VoD) Testing

The new VoD service was tested firstly at a component level, and then its integration capabilities were thoroughly tested. This was followed by whole system testing, and finally acceptance testing.

In order to enable the VoD system, we undertook in-depth testing of the SeaChange VoD Back-Office (Adrenalin). We navigated through the full workflow of the system and tested the operational processes including ingest, customer management, catalogue/title/product management, purchase & playback, reporting & billing as well as the infusion & broadcast management system.



Alongside the back-office system, we provided functional and user interface (UI) testing on the VoD application. This allowed us to validate the behaviour of the back-end in conjunction with the back-office.

We subjected the system to a wide variety of non-functional testing to ensure it would perform under stress and heavy loads. Performance was also assessed by co-ordinated end user testing to check playback and purchase performance as well as stability.

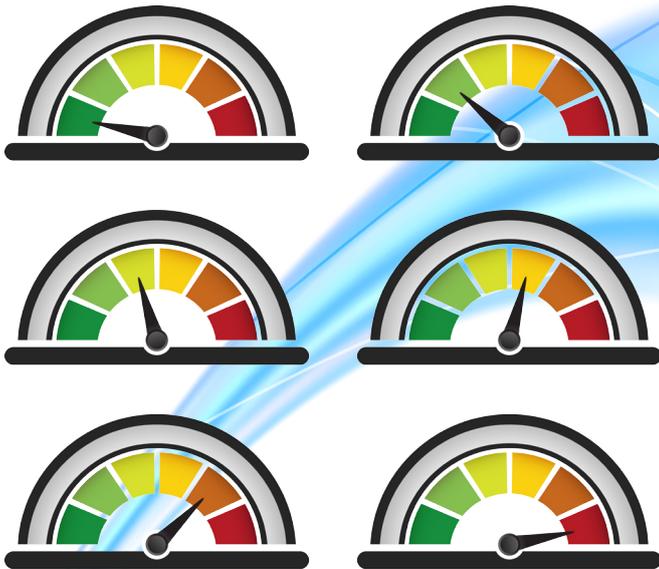
The testing was driven by specification analysis and our requirement recommendations. The Eurofins team was responsible for all of the test case development & maintenance, execution and defect management. We provided daily reporting, weekly summaries, final test reports and go/no go advice.

Test Automation

In order to make the testing as efficient as possible, our extensive experience with test automation was a huge advantage. Large parts of the project were conducted using a combination of automation test tools. Primarily, we utilised Eurofins' internally developed TestWizard system as well as SoapUI and Selenium. This allowed us to easily execute functional, performance, stress, load and stability testing in a highly repeatable manner, on multiple parts of the delivery chain with little manual intervention.

Outcome

The project has been highly successfully for Vodafone with Gregorio Pampliega Rodriguez (the VoD manager at Vodafone) expressing his complete satisfaction with the project. As a result, Vodafone were able to launch their upgraded VoD platform on schedule, with no significant issues. This included deploying the system on their legacy STBs and adding approximately 1.7 million new subscribers. Over 5.5 million households in more than 140 towns can now access Select Video.



Hong Kong
Units 8-10, 16th Floor,
Peninsula Tower,
538 Castle Peak Road,
Cheung Sha Wan,
Kowloon, Hong Kong
T: +852 3426 9695

UK
Castlemead,
Lower Castle Street,
Bristol, BS1 3AG, UK
T: +44 1179 896 100

Sweden
Diskettgatan 11B
SE-583 35 Linköping
Sweden
T: +46(0)13-460 27 27

W: www.eurofins-digitaltesting.com
E: DigitalTesting@eurofins.com
Twitter: @EurofinsDigital



Belgium
Wetenschapspark 7
B-3590 Diepenbeek
Belgium
T: +32 11 303 600

Poland
Ul. Heveliusza 11
80-890 Gdansk
Poland
T: +48 58 321 73 90