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## MOBILE GAMES TESTING ACCELERATES AT FUTURE GAMES OF LONDON WITH NE-ONE NETWORK EMULATOR



Future Games Of London - a Ubisoft Studio focuses exclusively on the development of mobile games for phone and tablet users.

From free-to-play arcade games to premium virtual reality experiences, the studio owns industry-leading intellectual property including the Hungry Shark brand which has been downloaded over 600 million times worldwide.

Although the studio had established processes in place for testing the game over some different network types and conditions, these were proving to be time-consuming manual procedures that could also be inconsistent and on occasion, nothing more than best guesses. FGOL Technical Director, Peter Hodges recognised the potential to improve the studio's existing quality control processes and realised it was time to find an alternative.

### THE PROBLEM

As a developer of mobile games, FGOL fully understands that the player experience is going to be heavily dependent on how well the game can cope with the often variable quality and availability of mobile and WiFi networks. In



order to mitigate the impact of variable network conditions on game performance, the studio employed a range of techniques in order to replicate various user experiences reported in the production environment which are very different to the network experience found in the dev-test environment.

"Our testing was exceptionally manual, we would take our best guesses at how problems arose that we were detecting in the production environment. This could involve sending testers to different parts of the studio in order to locally emulate a bad network experience", explains Peter. "The problem with this approach was that you couldn't guarantee the conditions would be the same day after day after day, which meant the reproducibility rates could be very low for some of the more difficult bugs. Furthermore, it was very time-consuming and a drain on our resources, taking up time that could be spent on more creative activities".



*iTrinegy NE-ONE Network Emulator*

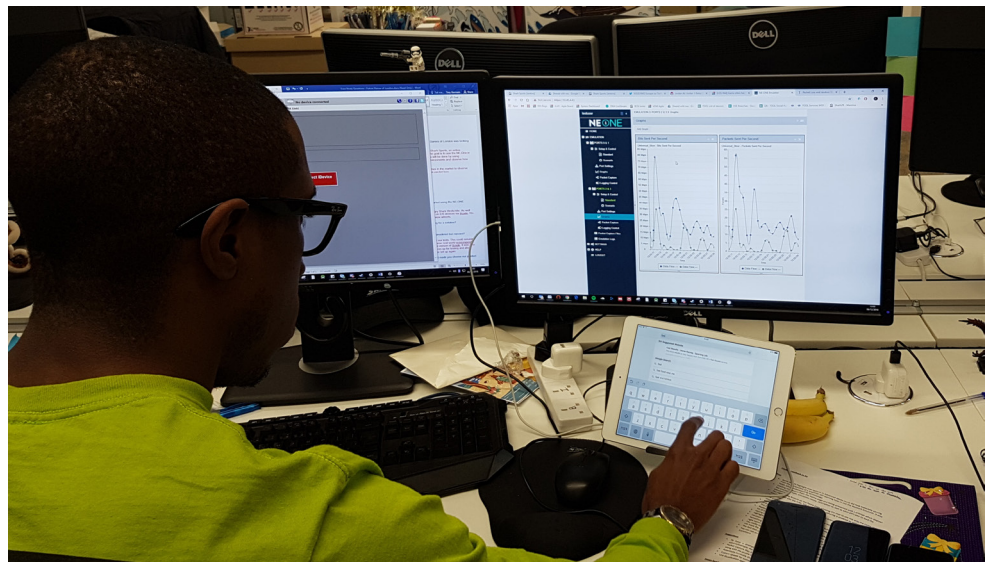
## THE SOLUTION

Convinced that there had to be a more cost-effective and time-efficient way to conduct testing, Peter began to research the market. "I was looking for fresh ideas when it came to improving workflows", explained Peter, "so I looked around at different hardware and software solutions including iTrinegy's NE-ONE Network Emulator".

An on-site demonstration to Peter and the Quality Control team convinced FGOL that the NE-ONE Model 20 with its twenty concurrent network links and built-in Network Scenario Builder could meet their requirements. "We were looking for a tool for testing particular scenarios on the network and we needed to ensure the tool was well suited to the people who are going to use it, namely our QC staff, which meant a friendly user interface was a key requirement. The demonstration showed that the NE-ONE's UI was one that our QC team could easily engage with".

## NE-ONE LIVES UP TO ITS NAME

Initially, Peter envisaged using the NE-ONE with a new game that was in development but FGOL immediately found it useful for testing a game already in production. "I started off conservative. I wanted to bed the NE-ONE in and find a home for it but the Quality Control team latched on to it straightaway and used the NE-ONE to address some of their 'hard to reproduce' bugs and this has proved extremely satisfactory for the team".



*NE-ONE Network Emulator is proving easy to use for the Quality Control team*

"The standout feature of the NE-ONE for me is its easy accessibility for my team; we can use the emulator without needing a network engineering background. There was a short learning curve but what we found was that any issues in this department were small - a couple of stumbling blocks that required support from iTrinegy relating to the setting up of initial network connections but we did not encounter any significant problems. We might say the NE-ONE lives up to its name as anyone can use it".

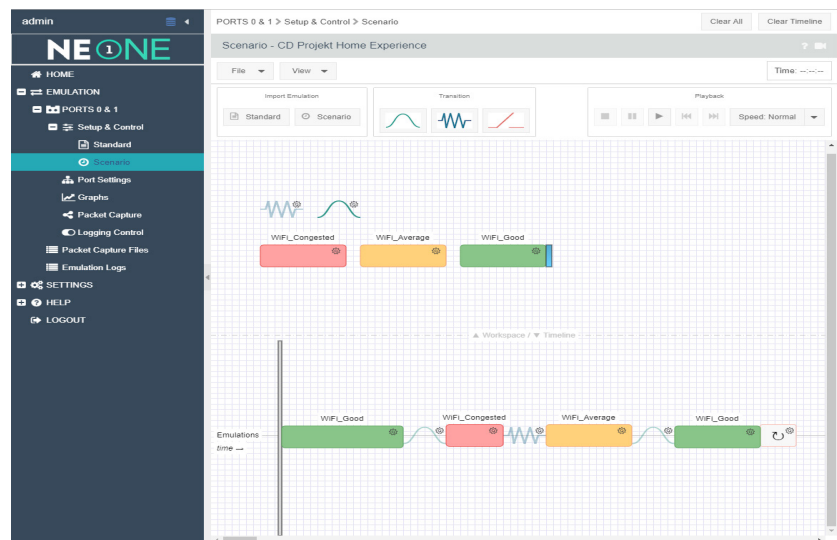
## A LIBRARY OF SCENARIOS

“Our plan is to assemble a library of network scenarios using the NE-ONE”, explains Peter, “so that when we are testing for a particular problem we can run through this library to find a good match. Where this isn’t possible, we can build a new scenario. It all fits into our workflow so that the person responsible for addressing a particular issue knows exactly how the test was previously carried out.”

## TESTING MULTIPLE DEVICES AND VARIABLE NETWORK CONDITIONS

The twenty concurrent network links supplied with the Model 20 enables various members of the QC team to get ‘hands-on’ and quickly hook up multiple mobile devices to different quality networks at the same time which helps them to conduct their tests more quickly.

Another feature provided as standard with the NE-ONE Model 20, and used extensively by FGOL, is the Network Scenario Builder which enables the user to combine together a series of different network conditions to simulate the player experience as network quality and availability changes over time.



*The “Drag & Drop” approach of the Network Scenario Builder makes it easy to vary network experiences over time*

Troy Germain, FGOL Network Games Tester explains how this feature is proving useful. “Having the Scenario Builder designed in a video editor ‘Drag and Drop’ way really makes it easy to put together a range of different network experiences on the timeline and the three different built-in Transition Types offered can potentially build several realistic real-life scenarios”.

## CONCLUSION

When asked if he believes the use of the NE-ONE has helped FGOL’s with their mobile games testing, Peter replies “Yes, even at this early stage we can give a very clear and positive answer - we are able to create our testing scenarios in a very fluid way that reduces the overall bug fixing cycle, saving us time and improving game quality - there is every reason to be content with the progress made so far”.