

CUSTOMER SUCCESS STORY

O2 UK Optimizes Video Quality



“We had to protect the experience of the vast majority of customers, but still wanted to provide a good experience to the few.” - Principal Data Platforms Engineer

Understanding led to a subscriber-friendly solution

In August 2011, network engineers at O2 UK noticed significant traffic spikes at different times of day. These spikes showed two peaks separated by a central trough, and their sudden appearance coincided perfectly with the launch of a highly anticipated video application for a popular smartphone.

The Investigation

Investigation with Sandvine’s Network Demographics confirmed that the spikes were caused by subscribers streaming soccer matches from the English Premier League.

These streams were carried via HTTP Live Streaming (HLS), and were adaptive in nature—shifting display quality up as the network allowed and down as resources became scarce.

The Risk

The investigation revealed that if only one mobile user in 1000 streamed a match, it was still enough to cause a significant increase in network traffic, due to the high display quality.

Even just a few subscribers using high-resolution streaming had potential to negatively impact the experience of everyone else on the network. How, then, could O2 keep everyone happy?

The Response

A simple response would set a maximum level for HLS and shape the traffic in aggregate; however, this approach would impact some users and not others, and wouldn’t provide a good quality of experience for everyone.

The engineers kept everyone happy by defining a policy that fairly rate-limited the individual adaptive video streams, but would only ‘kick in’ when the network was under stress.

About Telefónica O2 UK

O2 UK, a subsidiary of Telefónica, provides 2G, 3G, 4G, and WiFi services to millions of subscribers throughout the United Kingdom.



Is your network optimized for video? Visit www.sandvine.com