Overview
Sky is Europe’s leading direct-to-consumer media and entertainment company, providing original and acquired TV, cinema, news, sports, and other content to 23 million households across seven countries. The company employs more than 31,000 staff and reported fiscal 2018 revenue of £13.6 billion.

Challenge
As part of a large digital transformation program, starting in 2011, Sky has adopted enterprise agile development. This resulted in a sophisticated Service-Oriented Architecture (SOA) and an explosion of new components and services to support sales and service requests. There is also a growing move towards third party cloud vendors to deliver specific solutions for Sky. Though these applications are not owned by Sky, they are still subject to the same testing requirements, even without access to the endpoint systems.

Colin Griffiths, Performance Engineering Manager for Sky, explains: "Our testing processes followed traditional waterfall-based development where we would test for two weeks in a six week development cycle. With the move to Agile, this really wasn’t appropriate anymore and we needed to increase our testing speed and agility. As an organization, we are often driven by product launches, campaigns and events, such as the launch of a new iPhone, and we have to make sure our systems can scale to manage the peaks in demand."

The way in which Sky services are consumed changes continually as well. The Sky platform was traditionally contact centers only, but is now accessed from multiple channels such as .com and the Sky set top box platform. Most recently we are seeing increasing numbers of customers using the Sky mobile application and, as a result, the platform load is more unpredictable than it was a number of years ago. Sky wanted to introduce automated performance testing and report generation. The team

At a Glance
■ Industry
Telecommunications
■ Location
United Kingdom
■ Challenge
Create a flexible and dynamic performance testing environment to keep pace with the adoption of agile development
■ Products and Services
LoadRunner Enterprise
ALM/Quality Center
Service Virtualization
■ Results
+ Achieved 95% automated end-to-end performance testing
+ Business partnership delivers greater innovation
+ Consistently met peak traffic demands
+ Reduced manual effort and engineering time through process automation

Case Study
Application Delivery Management

Sky

Micro Focus® Application Delivery Management solutions support fast-paced and large scale CI/CD testing in agile DevOps environment.

“We manage a large performance test infrastructure with ever-changing requirements. If we had to build and maintain complex tests to replicate every scenario, it would be time-consuming and error-prone. Instead, Micro Focus listened carefully to our requirements and working together on new features for the platform has been very rewarding.”

COLIN GRIFFITHS
Performance Engineering Manager
Sky
clearly saw a need to deliver a Continuous Integration/Continuous Delivery (CI/CD) testing solution. Micro Focus LoadRunner Enterprise was already in use within Sky, and Griffiths and the team worked closely with Micro Focus Product Management and Research and Development to define a robust testing model that met the demands of a fast-paced, large scale, enterprise agile organization.

As the scope of software testing became clearer, so did new challenges associated with this, as Griffiths comments: "The future of many enterprise applications and platforms will be cloud-based, and traditional software builds will be replaced by containerized development. In collaboration with Micro Focus, we want to design and build a truly dynamic and flexible solution, using established DevOps principles. This allows us to define test volumes, build the test configuration, and run the test automatically in a container."

**Solution**

A close design partnership resulted in an end-to-end testing architecture, which leverages several Micro Focus Application Delivery Management solutions: ALM/Quality Center is used for test and defect management. LoadRunner Enterprise covers approximately 95 percent of performance testing, while Service Virtualization delivers approximately 350 virtual services so that performance testing can be done even when the real service or data is unavailable, as is the case with many third-party providers.

LoadRunner Enterprise enables Sky to test the capacity of its systems and scale far beyond what would be regarded as usual volumes, to allow for certain peak periods. In the automated model, testing takes place in overnight hours so that no manual effort is involved, and no system resources are used during peak hours. "With LoadRunner Enterprise, we can run tests much faster than before, and have introduced a change-driven approach, where we test what we need, reducing engineering time", says Griffiths. "We arrive in the morning to comprehensive test reports, giving us quick insight into the test results."

LoadRunner Enterprise’s continuous testing features allow Sky to adapt testing to increasing numbers of components and applications without having to increase the size of the testing team. Using the automated end-to-end testing model, large complex testing scenarios are built automatically, and the system can accurately model production traffic dynamically, reducing manual effort and engineering time. The Sky team works closely with Micro Focus to deliver exciting new functionality to the testing platform, including the continued joint work on test containerization.

**Results**

Collaborating with Micro Focus to create a truly flexible and dynamic testing environment ensures that system capacity limits are continually tested so that Sky always offers a robust and high performance service to its customers, and can meet its business demands.

Griffiths appreciates the partnership: "We manage a large performance test infrastructure with ever-changing requirements. If we had to build and maintain complex tests to replicate every scenario, it would be time-consuming and error-prone. Instead, Micro Focus listened carefully to our requirements and working together on new features for the platform has been very rewarding."