



Science and
Technology
Facilities Council

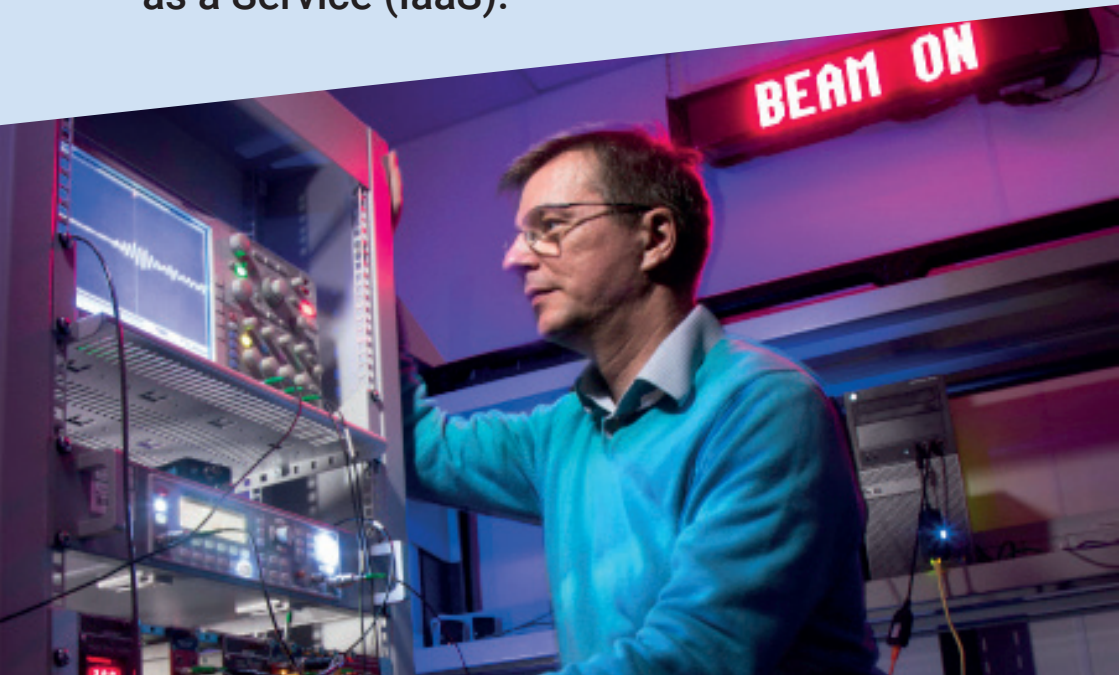
STFC Cloud

*A dedicated cloud infrastructure for STFC
staff and users.*



About STFC Cloud

The STFC Cloud is a dedicated cloud infrastructure which provides access to compute resources for users across the facilities provided by STFC. Run by the Scientific Computing Department, it is designed to be flexible to allow as many different use cases as possible. The aim of the Cloud is to allow users to perform complex data analysis without the overheads of running their own infrastructure, an approach often referred to as Infrastructure as a Service (IaaS).



A photograph of a server rack with various components like fans and cables. The image is partially obscured by a white diagonal shape that contains text.

Impact studies

A key service is Data Analysis-as-a-Service for users of the UK Neutron and Muon Source at STFC, which aims to shorten the time from experiment to publication by providing simpler access to compute resources. Experiments performed on neutron beam instruments produce large amounts of data, which are stored on cloud-based servers. Cataloguing and analysis are performed on the same servers via a cluster of virtual machines.

External users of the Cloud include the European Space Agency (ESA), who use the service to run distributed workloads for the EUCLID mission, which will measure the acceleration of the universe to understand dark energy and dark matter. Diamond Light Source also use the Cloud to process data related to fragment screening, which uses x-ray crystallography to identify potential new pharmaceutical drugs.

25,000
cores

200
current users

160
different projects

1300
virtual machines running

The STFC Cloud is due to grow to 60,000 cores with 2000 virtual machines running by April 2021.

