

There is a rapidly increasing range of research activities which involve the outsourcing of computing and storage resources to public Cloud Service Providers (CSPs), who provide managed and scalable resources virtualised as a single service. Amazon Elastic Computing Cloud (EC2) and Simple Storage Service (S3), for example, are two widely adopted open cloud solutions, which aim at providing pooled computing and storage services and which charge users according to their weighted resource usage. Other example usage includes the employment of Google Application Engine and Microsoft Azure as development platforms for research applications.

Despite a lot of activity and publication on cloud computing, the term itself and the technologies that underpin it are still confusing to many due to its strong commercial nature.

In order to speed up the adoption of cloud computing in research communities, the TeciRes project delivered two guidance notes that provide detailed guidelines along with rules of thumb for building and using cloud services from the perspectives of both cloud infrastructure service providers and researchers.

The TeciRes “Guidance notes to researchers”, as one of deliverables of the TeciRes project, provides guidance to researchers who are potential end users of public CSPs for research activities. It contains information to researchers on:

- The differences between and relations to pre-existing research computing models
- The considerations that have to be taken into account before moving to cloud-aided research
- Current research on the issues associated with cloud computing for research
- Tips and tricks

The content of the guidance notes focuses on using public cloud services to realise two major use scenarios (Figure 1 and Figure 2) as identified during the course of our TeciRes project.

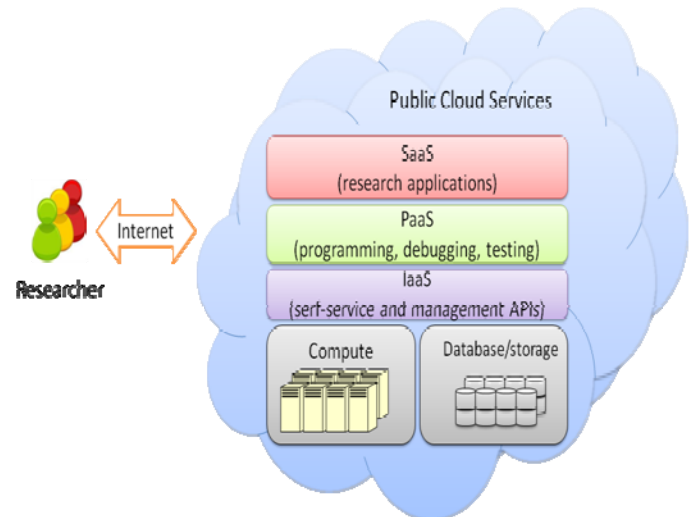


Figure 1: Case Scenario – Cloud outsourcing

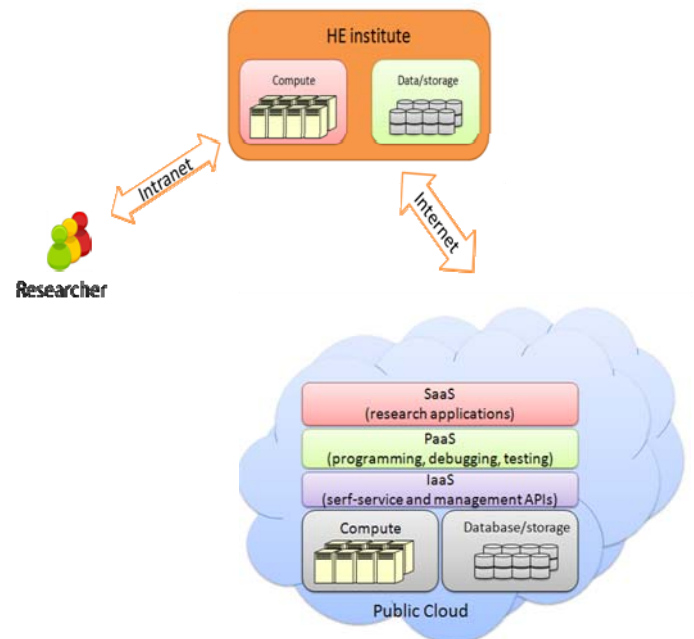


Figure 2: Case Scenario – Cloud bursting

More details on case scenarios and guidance notes can be found in the TeciRes final report and guidance notes documents available online at <http://tecires.ecs.soton.ac.uk/document.php>.