CATAPULT
Satellite Applications

CEMS (Climate, Environment and Monitoring from Space) is a unique service from Satellite Applications Catapult offering space-based EO data sets and services, in conjunction with IaaS cloud-based computing.

Simple to understand cloud-based infrastructure and computing with support, data discovery, download and processing all in one place.

Compute resource allocation is flexible and designed to scale with a customer's needs. Resources are priced individually and charged monthly, to provide predictable billing.

Through the CEMS cloud facility, we offer purpose-built, on demand, flexible, scalable, and secure computing and storage infrastructure services. Within the cloud IaaS model, we provide the hardware and virtualization platform, with clients responsible for the operating system, platform, and applications that run on those machines. The CEMS cloud facility is built on cutting-edge technologies, enterprise-class infrastructure, and the latest VMware® product suite. CEMS includes a set of virtual machines with powerful dedicated NVidia® graphical processing unit (GPU) processors for applications demanding high resolution graphics or 3D rendering. Resources are allocated directly to each client's virtual data center and are flexible and scalable to a client's needs.

CEMS users can access a range of EO data including Sentinel and Landsat datasets on the Sentinel Data Access Service (SEDAS) portal. The data can be searched, managed, and processed cost-effectively on CEMS' high performance computing infrastructure. Users get access to specialized applications and tools that can help efficiently analyze the data, such as the ESA Sentinel tool kit and ENVI from L3Harris. Computing power is placed alongside the data, removing the need to download large volumes of data to your own physical infrastructure. CEMS cloud computing facilities can provide internal data processing and core services for organizations, academic projects, or as a shop window for applications or services.