

Cloud Hosting Solutions Supports 21st Century Science

Introduction

Cloud Hosting Solutions (CHS) provides a cloud-based enterprise environment that supports hosted applications and a collection of managed services to advance the mission of the U.S. Geological Survey (USGS). By leveraging cloud technologies, CHS is enabling the USGS to operate as a 21st century organization. CHS is developing an ecosystem of cloud-based services and tools that allow scientists to acquire, secure, store, share, process, analyze, model, visualize, and disseminate data in a common environment. CHS is operated and maintained by the Office of Enterprise Information staff in cooperation and governance with the Department.

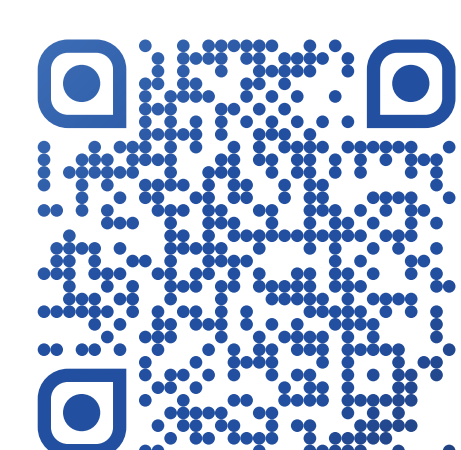
What is the Cloud?

The Cloud uses outsourced computing resources that can scale to fit your needs on demand. The Cloud provides many advantages in cost savings, performance, security, storage, and recovery options. USGS Cloud resources are provided through Amazon Web Services (AWS).

How is the USGS Cloud Enabling 21st Century Science?

For the USGS to operate as a 21st Century scientific organization and support the Earth Monitoring, Analyses, and Projections (EarthMAP) vision, it will need to build upon an IT platform that provides virtually unlimited storage and compute capabilities surrounded by an expanding ecosystem of analytical services. Only major public cloud service providers can support this environment, such as the environment facilitated by CHS. CHS is currently providing innovative cloud technologies to USGS mission areas and offices and will continue to develop new cloud-based shared services and tools in support of the future USGS vision.

More Information



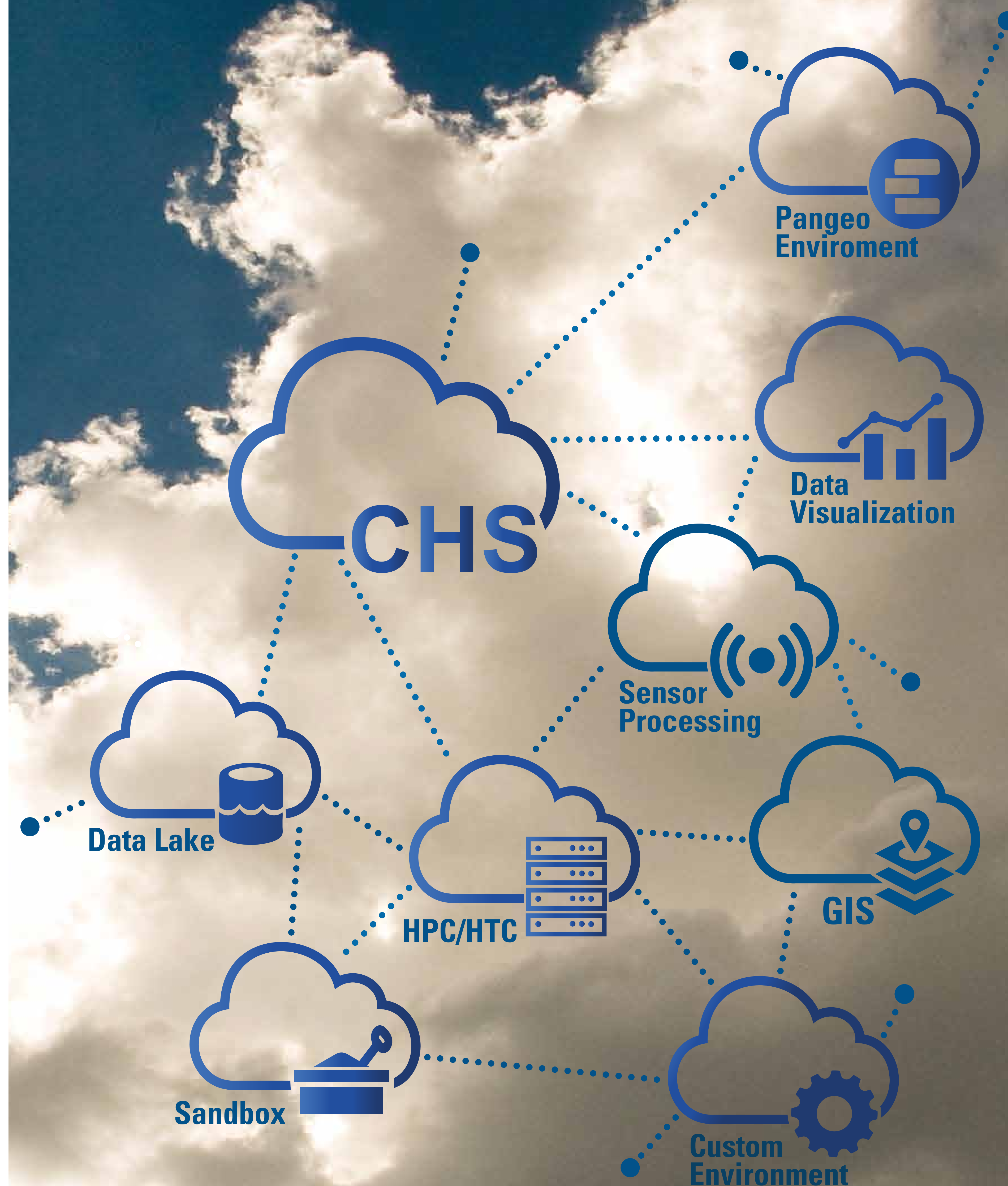
Cloud Hosting Solutions

Help Center: support.chs.usgs.gov

Website: internal.usgs.gov/oei/cloud-hosting-solutions

email: cloudservices@usgs.gov

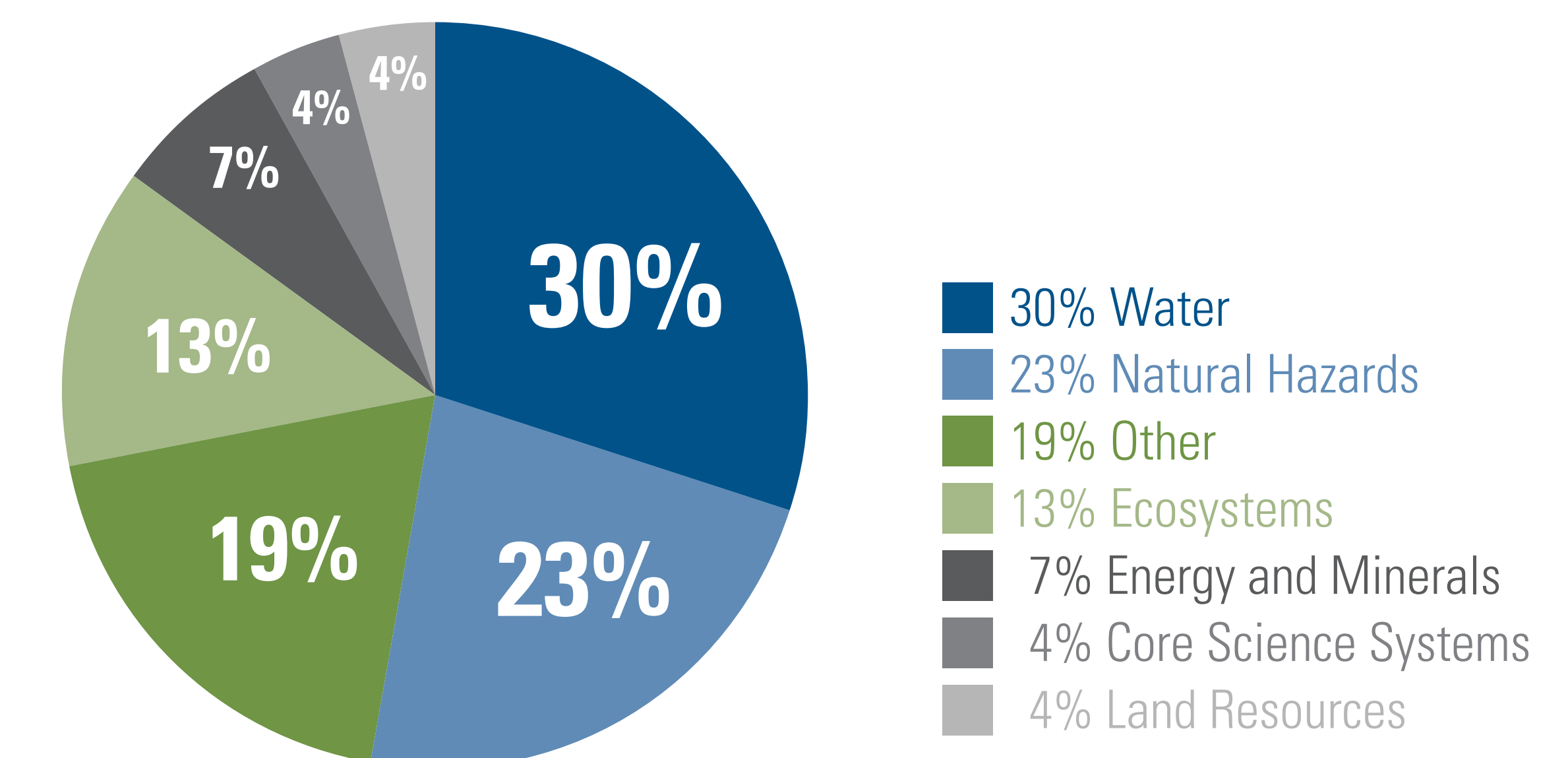
The USGS Cloud Ecosystem of Services and Tools



CHS Managed Services and Capabilities: Pangeo Environment*, Cloud Sensor Processing Framework*, Tableau Server, AWS ParallelCluster*, Alces Flight*, HTCondor*, R-Studio*, Data Lake*, ESRI ArcGIS Enterprise*, CHS Sandbox, GitLab, LiDAR support*, Backup, Storage, Multi-Region capability*, and more!

*Services in development

Who is using the USGS Cloud?



Mission Area Distribution of CHS Customers as of April 2019

What Services are Being Used in the USGS Cloud?

1.5
PB of data
stored in CHS

160
Sandbox users
since 2016

21
Groups using
Cloud backup

20
Groups using
Tableau

71+
Applications live or
being developed in
custom environments

