

Cloud computing

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Cloud providers

Platform	Website	Notes
AWS	www.aws.amazon.com	Largest commercial provider, IaaS
Google Cloud Platform	cloud.google.com	IaaS
Microsoft Azure	azure.microsoft.com	IaaS
IBM Cloud	www.ibm.com/cloud/	IaaS
Alibaba Cloud	www.alibabacloud.com	IaaS
DNAxenus	www.dnanexus.com	SaaS; used by ENCODE
Illumina BaseSpace Sequence Hub	basespace.illumina.com	SaaS
Seven Bridges	www.sevenbridges.com/platform	SaaS; hosts one of the platforms for the CGC Pilots
Globus Genomics	globusgenomics.org	SaaS

Langmead, Ben, and Abhinav Nellore. "Cloud Computing for Genomic Data Analysis and Collaboration." *Nature Reviews Genetics*, January 30, 2018. <https://doi.org/10.1038/nrg.2017.113>.

Academic cloud services

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Seven Bridges CGC	cancergenomicscloud.org	Part of the CGC Pilots initiative; includes collaboration tools; allows working with new data
Broad FireCloud	software.broadinstitute.org/firecloud	Part of the CGC Pilots initiative by the NCI to fund three platforms that colocate genomic data and analysis tools in the cloud; includes collaboration tools; allows working with new data
ISB-CGC	http://cgc.systemsbiology.net/	Part of the CGC Pilots initiative
XSEDE Jetstream	xsede.org jetstream-cloud.org	Supported by NSF Science cloud in XSEDE located at TACC and Indiana University's Pervasive Technology Institute
Rodeo	www.tacc.utexas.edu/systems	Part of TACC, which is located at the University of Texas at Austin and contains large-scale computing resources; Comprises 256 processing cores and 2 TB of memory allocated for the Galaxy public server
Corral	www.tacc.utexas.edu/systems	Part of TACC; Comprises 20 PB of storage allocated for the Galaxy public server

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European Open Science Cloud	ec.europa.eu/research/openscience-cloud	Proposed in 2017, to be implemented across European Union member states
OSDC	opensciencedatacloud.org	PB-scale science cloud tailored for access to and analysis of publicly available data stored in the OSDC Data Commons
Bionimbus Protected Data Cloud	bionimbus-pdc.opensciencedatacloud.org	Science cloud associated with OSDC that permits secure analysis of protected health information
Compute Canada	computeCanada.ca	High-performance Canadian computing network spanning ACENET, Calcul Québec, Compute Ontario and WestGrid
de.NBI	www.denbi.de	Bioinformatics service provider in Germany spanning education, consulting, computing and storage, as well as databases
Embassy Cloud	embassycloud.org	Science cloud for EMBL–EBI affiliates including direct access to public genomics data sets
Helix Nebula	helix-nebula.eu	European open science partnership across industry and academia to provide cloud computing infrastructure
Nectar Cloud	nectar.org.au	Self-service Australian science cloud

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AWS (Amazon Web Services)

- Provides Elastic Compute Cloud (EC2) as a service that allows users to perform cloud computing (for a cost) without the cost of setting up the actual hardware necessary

<https://aws.amazon.com/>